

RX-884PBK  
RX-884PGD  
RX-884VBK

# JVC

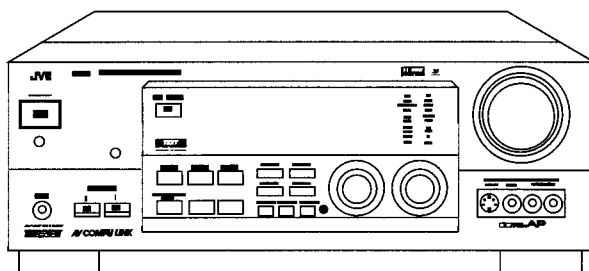
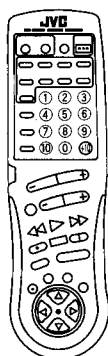
## SERVICE MANUAL

### AUDIO/VIDEO CONTROL RECEIVER

# RX-884PBK RX-884PGD RX-884VBK

#### Area Suffix

UF(PBK/PGD) ..... China  
UT(PBK/VBK) ..... Taiwan  
US(PBK) ..... Singapore  
U (PBK/VBK) ..... Universal



**TEXT**  
**COMPU LINK**

**COMPU LINK**  
**/// Remote ///**

**3D**  
**3D-PHONIC**

**DIGITAL AP**

**DOLBY SURROUND**  
**PRO · LOGIC**

### Contents

|                                      |        |                              |         |
|--------------------------------------|--------|------------------------------|---------|
| Safety Precautions .....             | 1-2    | Adjustment Procedures .....  | 2-25    |
| Instruction Book .....               | 1-3~38 | Block Diagrams .....         | 3-1     |
| Description of Major ICs .....       | 2-1    | Schematic Diagrams .....     | 3-4     |
| Internal Connection of Display ..... | 2-20   | Printed Circuit Boards ..... | 3-13~18 |
| Disassembly Procedures .....         | 2-22   | Parts List .....             | 4-1~19  |



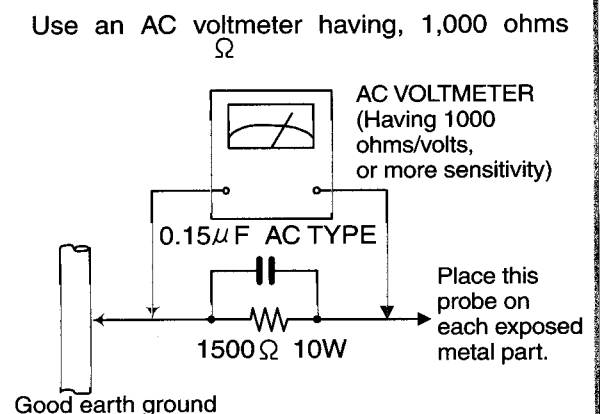
# RX-884PBK/RX-884PGD/RX-884VBK

## Safety Precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by ( $\Delta$ ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)  
After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.)

- Alternate check method  
Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 10W resistor paralleled by a 0.15 F AC-type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. voltage measured Any must not exceed 0.75 V AC (r.m.s.).

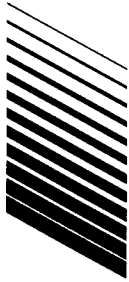


## Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

**⚠ CAUTION** Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.

# 2. Instructions



# JVC

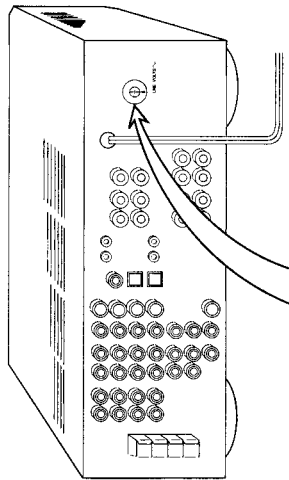
Mains (AC) Line Instruction (not applicable for Europe, U.S.A., Canada, Australia and U.K.)

Instrucción sobre la línea de la red (CA) (no aplicable para Europa, EE.UU., Canadá, Australia, ni el Reino Unido)

Instrução sobre a tensão da rede eléctrica (CA) (não aplicável para a Europa, os E.U.A., o Canadá, a Austrália e o Reino Unido)

主 (AC) 電源線路說明 (不適用於歐洲、美國、加拿大、澳洲及英國型號)

تعليمات التيار الرئيسي (المتردد) (لا ينطبق لاوروبا وامريكا وكندا والمملكة المتحدة)



**IMPORTANT for mains (AC) line**  
 BEFORE PLUGGING IN, do check that your mains (AC) line voltage corresponds with the position of the voltage selector switch provided on the outside of this equipment and, if different, reset the voltage selector switch, to prevent from a damage or risk of fire/electric shock.

**IMPORTANTE para la línea de la red (CA)**  
 ANTES DE ENCHUFAR EL EQUIPO, compruebe si la tensión de la línea de la red (CA) corresponde con la posición del selector de tensión situado en la parte exterior del equipo, y si es diferente, reajuste el selector de tensión para evitar el riesgo de incendios/descargas eléctricas.

**IMPORTANTE para a ligação à tensão da rede (CA)**  
 ANTES DE LIGAR O APARELHO A UMA TOMADA DA REDE, verifique se a tensão da rede CA corresponde à posição do selector de voltagem localizado na parte externa deste equipamento. Caso não corresponda, reajuste o selector de voltagem a fim de evitar avarias ou riscos de incêndio e choque eléctrico.

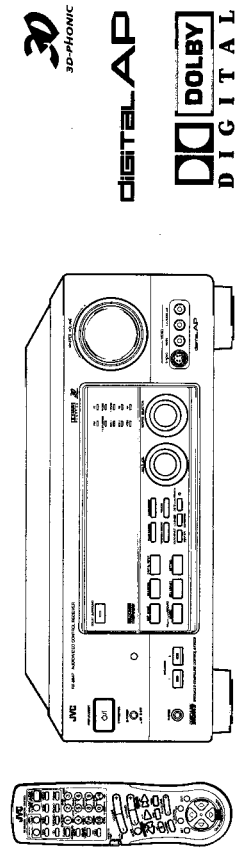
有關主 (AC) 電源線路的重要事項  
 接插電源以前，務請檢查當地的主 (AC) 電源線路電壓是否和位於本機外面的電壓選擇開關設定的位置一致。如果不一致，即重新設定電壓選擇開關，以免損害機器或引起火災/觸電的危險。

هام من أجل خط التيار المتردد (AC) الرئيسي  
 قبل اكمال التثبيت، تأكد من ان نطاق خط التيار المتردد (AC) الرئيسي يتطابق مع موضع مفتاح اختيار الترتيب الخارج هذه المعدات وانما اختلفت، فقم بإعادة ضبط مفتاح اختيار الترتيب. لتجنب اخطار الصدمة الكهربائية واحتمار الحريق.

## AUDIO/VIDEO CONTROL RECEIVER

RECEPTOR DE CONTROL DE AUDIO/VIDEO  
 RECEPTOR DE COMANDO AUDIO/VIDEO  
 聲/視頻控制接收機

## RX-884PBK



- TEXT  
COMPU LINK
- COMPU LINK  
Remote III
- 3D-PHONIC
- DIGITAL AP
- DOLBY  
DIGITAL

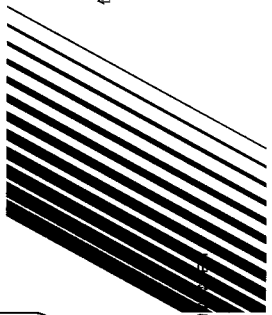
## INSTRUCTIONS

MANUAL DE INSTRUCCIONES  
 INSTRUÇÕES  
 使用說明書

**For Customer Use:**  
 Enter below the Model No. and Serial No. which are located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No. \_\_\_\_\_  
 Serial No. \_\_\_\_\_

LVT0017-001A (U. US)



03980FM

# JVC

VICTOR COMPANY OF JAPAN, LIMITED

EN, SP, PR, CH

English

Espanol

Portugues

中文

注意：正確的通風方法

為了防止觸電、火災以及避免損壞，

按如下要求放置機器：

- 前面： 側面： 上面： 背面： 底座： 不要放置障礙物，水平放置。

此外，如圖所示，儘可能保持最佳的空氣循環。

Caution: Proper Ventilation To avoid risk of electric shock and fire and to protect from damage.

Locate the apparatus as follows:

- Front: No obstructions in 10 cm from the sides. Side: No obstructions in 10 cm from the top. Top: No obstructions in 15 cm from the back. Back: No obstructions, place on the level surface. In addition, maintain the best possible air circulation as illustrated.

Precaución: Ventilación Adecuada

Para evitar el riesgo de choque eléctrico e incendio y para proteger el aparato contra daños.

Ubique el aparato de la siguiente manera:

- Fronte: Espacio abierto sin obstrucciones. Lados: 10 cm sin obstrucciones a los lados. Parte superior: 15 cm sin obstrucciones en la parte superior. Parte trasera: 15 cm sin obstrucciones en la parte trasera. Fondo: Sin obstrucciones, coloque sobre una superficie nivelada. Además, mantenga la mejor circulación de aire posible como se ilustra.

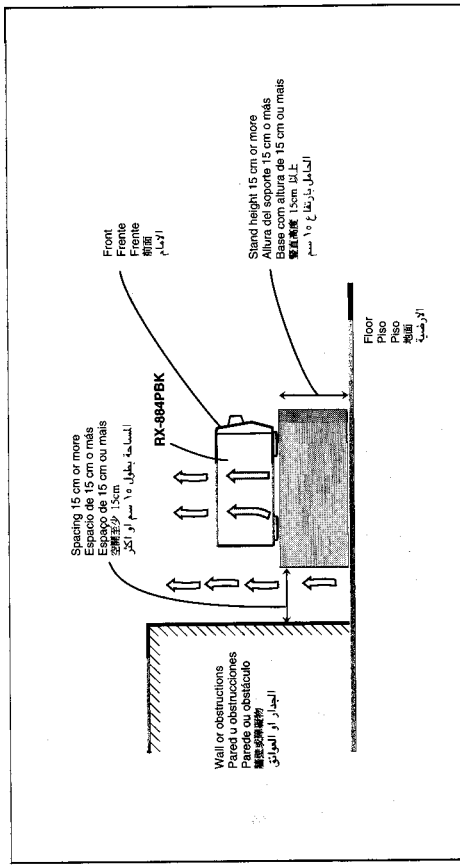
Precaução: ventilação apropriada

Para prevenir o risco de choque elétrico ou incêndio e para proteger o aparelho contra danos.

Localize-o da seguinte maneira:

- Fronte: Espaço aberto, sem obstruções. Lados: Espaço de 10 cm sem obstruções. Topo: Espaço de 15 cm sem obstruções acima. Parte inferior: Sem obstruções. Coloque o aparelho em superfície nivelada.

Mantenha, além disso, a maior circulação de ar possível, como indica a ilustração.



Warnings, Cautions and Others / Avisos, precauciones y otras notas / Advertências, precauções e outras notas / 警告，注意及其他須知事項

تحذيرات، تنبيهات وأشياء أخرى

CAUTION

- To reduce the risk of electrical shocks, fire, etc.: 1. Do not remove screws, covers or cabinet. 2. Do not expose this appliance to rain or moisture.

PRECAUCIÓN

- Para reducir riesgos de choques eléctricos, incendio, etc.: 1. No extraiga los tornillos, los cubiertas ni la caja. 2. No exponga este aparato a la lluvia o a la humedad.

ATENÇÃO

- Para reduzir riscos de choques elétricos, incêndio, etc.: 1. Não retire parafusos nem desmonte as tampas ou o gabinete. 2. Não exponha este aparelho à chuva nem à umidade.

警告

為了降低觸電、火災等危險：

- 1. 請勿擅自卸下螺絲釘、蓋子或機殼。 2. 切勿讓本機受雨淋或置潮濕環境中。

تحذير

لتجنب خطر الحريق، الصدمات الكهربائية، الخ:

- 1. لا تقم بفتح الغطاء أو الحزابة. 2. لا تقم بتعرض هذا الجهاز للتلط أو الرطوبة.

Caution — Interruptor and STANDBYON button!

- 1. When doing initial setting, complete all the connections required, connect the mains plug into the wall outlet, and set the interruptor to ON. After these, it will be available to operate STANDBYON button and so on. 2. When not in use, set the interruptor to OFF. 3. Disconnect the mains plug to shut the power off completely. The interruptor switch and STANDBYON button in any position do not disconnect the mains line. 4. The power can be remote controlled.

Precaución — Interruptor y botón STANDBYON!

- 1. Al ejecutar el ajuste inicial, después de completar todas las conexiones requeridas, conectar el cable de alimentación a una toma de pared, y activar el interruptor. Entonces, será posible ejecutar operaciones tales como la conmutación del estado de alimentación. 2. Desconectar el interruptor o dejar la unidad fuera de uso. 3. Desconectar el cable de alimentación para desactivar la alimentación totalmente. Cualquier que sea la posición de ajustes del interruptor o POWER y el botón STANDBYON, la alimentación no es cortada completamente. 4. La alimentación puede ser controlada remotamente.

Precaução — Interruptor POWER e botão STANDBYON!

- 1. Nos ajustes iniciais, efetue todas as conexões necessárias, ligue o plugue de alimentação à tomada e coloque o interruptor em ON. Feito isso, será possível operar o botão STANDBYON e as diversas funções. 2. Quando não utilizar o aparelho, coloque o interruptor em OFF. 3. Remova o plugue de alimentação da tomada para desligar o aparelho completamente. O interruptor em ON ou em qualquer de suas posições, não desligam a alimentação do aparelho. 4. É possível controlar remotamente a função do interruptor POWER.

注意 — POWER 開關及 STANDBYON 按鈕！

- 1. 在開始設定時，確保完成所有必要的接線，主電源插頭將移至至電源插座，並且把 POWER 開關置為 ON (開啟)。之後，它便可操作 STANDBYON 按鈕等等。 2. 不用本機時，把 POWER 開關置為 OFF (關閉)。 3. 若要完全切斷電源，必須把主電源插頭拔起。 4. 遙控器可用來開關電源。

ISTANDBYON / POWER 開關及 STANDBYON / POWER 按鈕！

- 1. 在開始設定時，確保完成所有必要的接線，主電源插頭將移至至電源插座，並且把 POWER 開關置為 ON (開啟)。之後，它便可操作 STANDBYON 按鈕等等。 2. 不用本機時，把 POWER 開關置為 OFF (關閉)。 3. 若要完全切斷電源，必須把主電源插頭拔起。 4. 遙控器可用來開關電源。

# Table of Contents

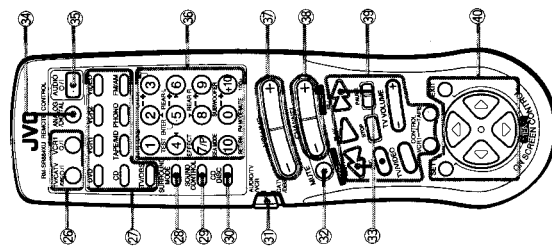
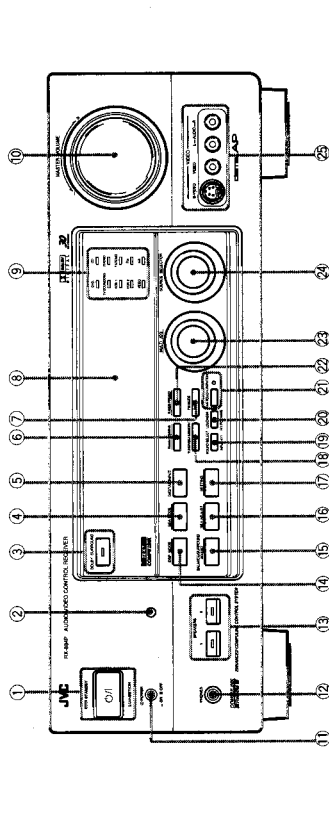
English

English

|  |           |   |           |
|--|-----------|---|-----------|
| <b>Parts Identification</b> .....                | <b>3</b>  | <b>Using the DSP Modes</b> .....  | <b>30</b> |
| <b>Getting Started</b> .....                     | <b>4</b>  | Using the 3D-PHONIC Modes.....  | 31        |
| Before Installation.....                         | 4         | Using the DAP Modes.....  | 34        |
| Checking the Supplied Accessories.....           | 4         | Using the Dolby Digital and Dolby Pro Logic Modes.....                        | 36        |
| Setting the Voltage Selector Switch.....         | 4         | Using the Theater Surround Mode.....  | 39        |
| Connecting the FM and AM Antennas.....           | 5         | <b>Using the On-Screen Menus</b> .....  | <b>43</b> |
| Connecting the Speakers.....                     | 6         | Selecting the Source to Play.....   | 43        |
| Connecting Audio/Video Components.....           | 9         | Selecting the Different Sources for Picture and Sound.....                    | 43        |
| Connecting the Power Cord.....                   | 13        | Using the DSP Modes.....  | 43        |
| Putting Batteries in the Remote Control.....     | 13        | Adjusting the Front Speaker Output Balance.....                               | 44        |
| <b>Basic Operations</b> .....                    | <b>14</b> | Listening at Low Volume (Loudness).....                                       | 44        |
| Turning the Power On and Off (Standby).....      | 14        | Attenuating the Input Signal.....   | 44        |
| Selecting the Source to Play.....                | 14        | Adjusting the Subwoofer Output Level.....                                     | 45        |
| Adjusting the Volume.....                        | 15        | Adjusting the DSP Modes.....  | 45        |
| Selecting the Front Speakers.....                | 16        | Selecting Your Favorite SEA Mode.....   | 46        |
| Muting the Sound.....                            | 16        | Creating Your Own SEA Mode.....   | 47        |
| Recording a Source.....                          | 16        | Basic Settings.....   | 47        |
| Attenuating the Input Signal.....                | 16        | Operating the Tuner.....  | 48        |
| Adjusting the Subwoofer Output Level.....        | 17        | Storing the Preset Stations.....  | 48        |
| <b>Basic Settings</b> .....                      | <b>18</b> | Assigning Names to the Preset Stations.....                                   | 49        |
| Changing the Source Name.....                    | 18        | <b>COMPU LINK Remote Control System</b> .....                                 | <b>50</b> |
| Selecting the Input Mode.....                    | 18        | <b>TEXT COMPU LINK Remote Control System</b> .....                            | <b>51</b> |
| Adjusting the Front Speaker Output Balance.....  | 19        | Showing the Disc Information on the TV Screen.....                            | 52        |
| Setting the Subwoofer Information.....           | 19        | Searching a Disc (Only for the CD Player).....                                | 53        |
| Listening at Low Volume (Loudness).....          | 19        | Using the User File (Only for the CD Player with the User File Function)..... | 55        |
| Digital Input (DIGITAL IN) Terminal Setting..... | 20        | Entering the Disc Information.....  | 56        |
| Setting the Speakers for the DSP Modes.....      | 20        | <b>Operating JVC's Audio/Video Components</b> .....                           | <b>58</b> |
| <b>One Touch Operation</b> .....                 | <b>23</b> | <b>Operating Other Manufacturers' Components</b> .....                        | <b>62</b> |
| About the One Touch Operation.....               | 23        | <b>Troubleshooting</b> .....  | <b>66</b> |
| Using the One Touch Operation.....               | 23        | <b>Specifications</b> .....   | <b>67</b> |
| <b>Receiving Radio Broadcasts</b> .....          | <b>24</b> |   |           |
| Setting the AM Tuner Interval Spacing.....       | 24        |   |           |
| Tuning in Stations Manually.....                 | 24        |   |           |
| Using Preset Tuning.....                         | 25        |   |           |
| Selecting the FM Reception Mode.....             | 26        |   |           |
| Assigning Names to Preset Stations.....          | 27        |   |           |
| <b>Using the SEA Modes</b> .....                 | <b>28</b> |   |           |
| Selecting Your Favorite SEA Mode.....            | 28        |   |           |
| Creating Your Own SEA Mode.....                  | 29        |   |           |

# Parts Identification

Become familiar with the buttons and controls on the receiver before use.



Refer to the pages in parentheses for details.

### Front Panel

- ① STANDBY/ON (1) button and STANDBY lamp (14)
  - ② Remote sensor (13)
  - ③ DOLBY SURROUND button and lamp (38)
  - ④ SEA MODE button (28) \*
  - ⑤ DIGITAL INPUT button (18)
  - ⑥ FM/AM TUNING button (24) \*
  - ⑦ FM MODE button (26)
  - ⑧ Display (14)
  - ⑨ Source lamps (14)
  - ⑩ MASTER VOLUME control (15)
  - ⑪ POWER switch (13)
  - ⑫ PHONES jack (16)
  - ⑬ SPEAKERS 1/2 buttons and lamps (16)
  - ⑭ DSP MODE button (31) \*
  - ⑮ BALANCE/SURROUND ADJUST button (19, 32) \*
  - ⑯ SEA ADJUST button (29) \*
  - ⑰ SETTING button (19) \*
  - ⑱ TUNER/SEA MEMORY button (25, 27, 29)
  - ⑲ SOUND SELECT/INPUT ATT. button (15, 17)
  - ⑳ LOUDNESS/SOURCE NAME button (18, 19)
  - ㉑ ONE TOUCH OPERATION button and lamp (23)
  - ㉒ TUNER PRESET button (25) \*
  - ㉓ MULTI JOG control
- What this control actually does depends on which function you are trying to adjust. Before using this control, select the function by pressing one of the buttons marked with \*.
- ㉔ SOURCE SELECTOR control (14)
  - ㉕ VIDEO input jacks (11)

### Remote Control

- ① TV/CATV/DBS (1) and VCR (1) buttons (60, 61)
  - ② Remote selecting buttons (15)
  - ③ SURROUND MODE button (33)
  - ④ SOUND CONTROL button (28, 33, 38)
  - ⑤ CD DISC button (59)
  - ⑥ Remote control mode selector (AUDIO/TV/VCR, CATV/DBS) (14, 58, 62)
- To operate an audio system, TV, and VCR, set this selector to "AUDIO/TV/VCR."
- To operate a CATV converter and DBS tuner, set this selector to "CATV/DBS."
- ⑦ MUTE button (16)
  - ⑧ TUNING UP/TUNING DOWN buttons (24)
- Before using this control, make sure that you have pressed FM/AM button on the remote control.
- ⑨ ANALOG/DIGITAL button (18)
  - ⑩ AUDIO (1) button (14)
  - ⑪ 10 keys for selecting preset channel (25)
  - ⑫ 10 keys for adjusting sound (28, 33)
  - ⑬ 10 keys for operating audio/video components (58, 62)
  - ⑭ VOLUME buttons (+/-) (15)
  - ⑮ CHANNEL buttons (+/-) (60, 62)
  - ⑯ Operating buttons for audio/video components (58, 62)
  - ⑰ MENU operating buttons (SET, EXIT,  $\Delta$ ,  $\nabla$ ,  $\leftarrow$ ,  $\rightarrow$ ) (43)

# Getting Started

This section explains how to connect audio/video components and speakers to the receiver, and how to connect the power supply.

## Before Installation

### General

- Be sure your hands are dry.
- Turn the power off to all components.
- Read the manuals supplied with the components you are going to connect.

### Locations

- Install the receiver in a location that is level and protected from moisture.
- The temperature around the receiver must be between -5° and 35° C (23° and 95° F).
- Make sure there is good ventilation around the receiver. Poor ventilation could cause overheating and damage the receiver.

### Handling the receiver

- Do not insert any metal object into the receiver.
- Do not disassemble the receiver or remove screws, covers, or cabinet.
- Do not expose the receiver to rain or moisture.

## Checking the Supplied Accessories

Check to be sure you have all of the following items, which are supplied with the receiver.

The number in the parentheses indicates quantity of the pieces supplied.

- Remote Control (1)
- Batteries (2)
- AM Loop Antenna (1)
- FM Antenna (1)
- Audio Signal Attenuating Cord (1)
- AC Plug Adaptor (1) (except for People's Republic of China)

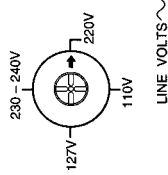
If anything is missing, contact your dealer immediately.

## Setting the Voltage Selector Switch

Before connections, always do the following first if necessary.

### How to set the voltage selector:

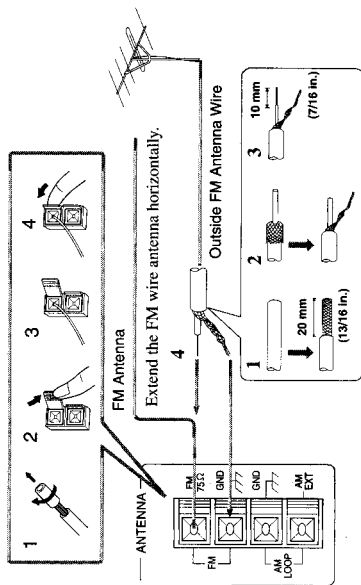
Set the correct voltage for your area with the voltage selector switch on the rear panel. Use a screw driver to rotate the switch so the number the arrow is pointing at is the same as the voltage where you are plugging in the receiver.



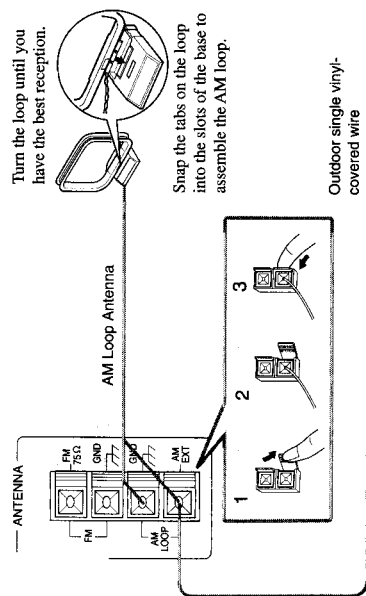
# Getting Started

## Connecting the FM and AM Antennas

### FM Antenna Connections



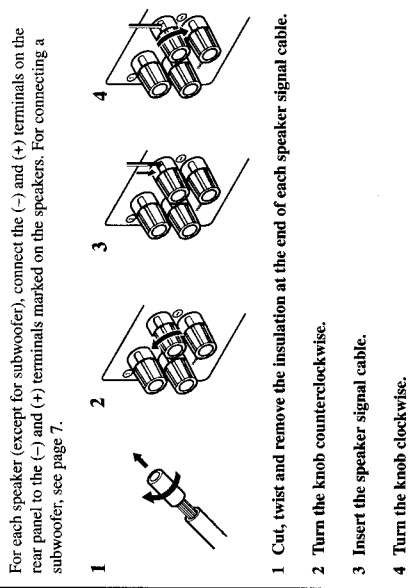
### AM Antenna Connections



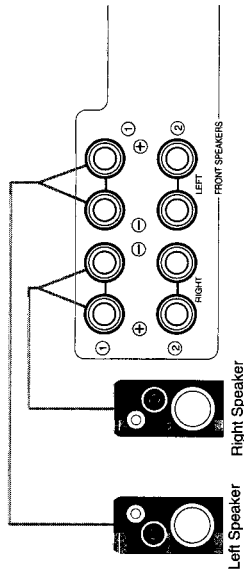
## Connecting the Speakers

- You can connect the following speakers:
- Two pairs of front speakers to produce normal stereo sound.
  - One pair of rear speakers to enjoy the surround effect.
  - One center speaker to produce more effective surround effect (to emphasize human voices).
  - One subwoofer to enhance the bass.

**IMPORTANT:** After connecting the speakers listed above, set the speaker setting information properly to obtain the best possible performance. For details, see pages 19 and 20.



**Connecting the front speakers**  
Connect the front speakers to the FRONT SPEAKERS terminals. You can connect two pairs of front speakers (one pair to the FRONT SPEAKERS ① terminals, and another pair to the FRONT SPEAKERS ② terminals).



**Note:** If reception is poor, connect the outside antenna. Before attaching a 75Ω coaxial cable (the kind with a round wire going to an outside antenna), disconnect the supplied FM wire antenna.

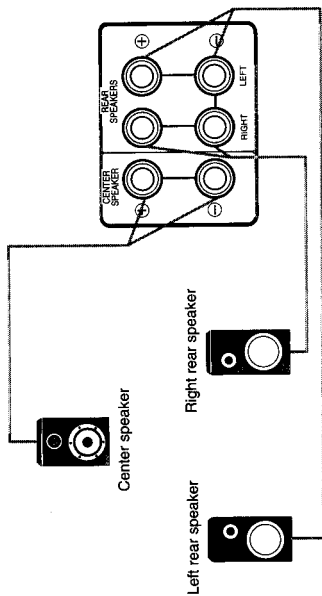
**Notes:**

- Make sure the antenna conductors do not touch any other terminals, connecting cords and power cord. This could cause poor reception.
- If reception is poor, connect an outdoor single vinyl-covered wire to the AM EXT terminal. (Keep the AM loop antenna connected.)

## Getting Started

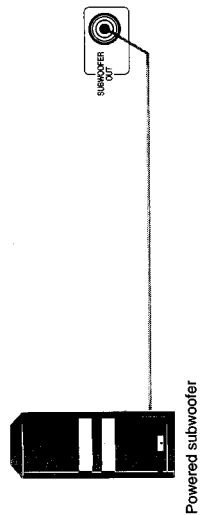
### Connecting the rear and center speakers

Connect the rear speakers to the REAR SPEAKERS terminals and a center speaker to the CENTER SPEAKER terminals.



### Connecting the subwoofer speaker

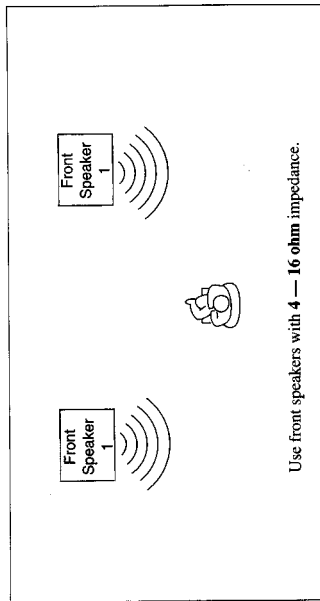
Connect the input jack of a powered subwoofer to the SUBWOOFER OUT jack on the rear panel, using a cable with RCA pin plugs.



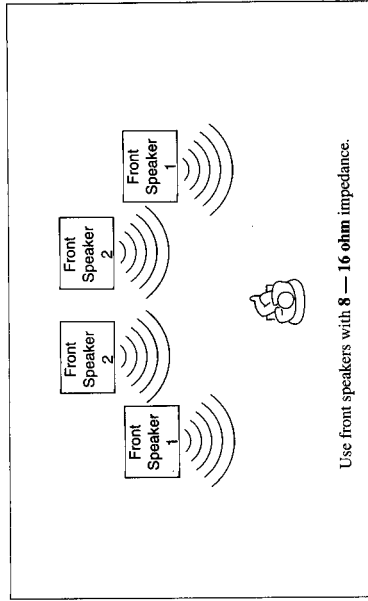
### About the speaker impedance

The required speaker impedance of the front speakers does differ depending on whether both the FRONT SPEAKERS ① and FRONT SPEAKERS ② terminals are used or only one of them is used.

#### CASE 1 When you connect only one set of front speakers



#### CASE 2 When you connect two sets of front speakers



**CAUTION:**  
When connecting speakers, use speakers with the same SPEAKER IMPEDANCE indicated by the speaker terminals.

**CAUTION:**  
Use speakers with the SPEAKER IMPEDANCE indicated by the speaker terminals.



Connecting Audio/Video Components

You can connect the following audio/video components to this receiver. Refer also to the manuals supplied with your components. If you want to connect a component not listed in the table below, refer to the manual supplied with it.

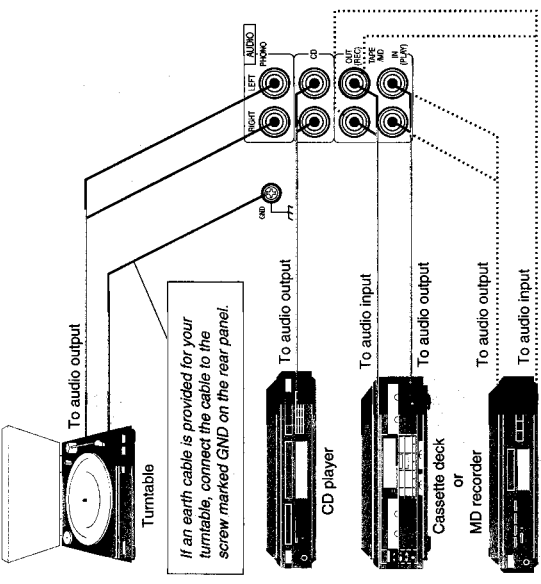
| Audio Components                | Video Components |
|---------------------------------|------------------|
| • Turntable                     | • DVD player*    |
| • CD player*                    | • TV             |
| • Cassette deck or MD recorder* | • DBS tuner*     |
|                                 | • VCRs           |
|                                 | • Video camera   |

\* You can connect these components using the methods described in "Analog connections" (below) or in "Digital connections" (see page 12).

Analog connections

Audio component connections

Use the cables with RCA pin plugs (not supplied). Connect the white plug to the audio left jack, and the red plug to the audio right jack.



If your audio components have a COMPU LINK-3 or TEXT COMPU LINK terminal

- See also page 50 for detailed information about the connection and the COMPU LINK-3 remote control system.
- See also page 51 for detailed information about the connection and the TEXT COMPU LINK remote control system.

Video component connections

Use the cables with RCA pin plugs (not supplied). Connect the white plug to the audio left jack, the red plug to the audio right jack, and the yellow plug to the video jack. If your video components have S-video (Y/C-separation) terminals, connect them using S-video cables (not supplied). Connecting these video components through the S-video input/output terminals will give you better picture playback (or recording) quality.

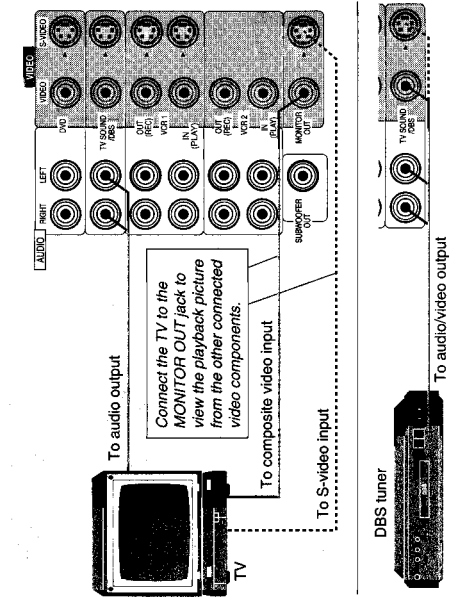
IMPORTANT:

This receiver is equipped with both the composite video and S-video input/output terminals for connecting video components. You do not have to connect both the composite video and S-video terminals. However, remember that the video signals from the composite video input terminals are output only through the composite video output terminals, while the ones from the S-video input terminals are output only through the S-video output terminals. Therefore, if a recording video component and a playing video component are connected to the receiver through the different video terminals, you cannot record the picture from the playing component on the recording component. In addition, if the TV and a playing video component are connected to the receiver through the different video terminals, you cannot view the playback picture from the playing component on the TV.

To view and record the playback picture from the video component connected to the VCR 2 jacks, you must connect the TV and the recording video component through the composite video terminals.

Connecting the TV and/or DBS tuner

You can connect either the TV or DBS tuner to the TV SOUND/DBS jacks.

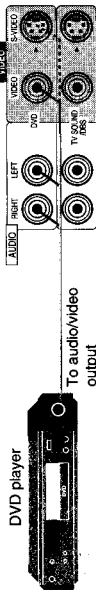


**Note:** When connecting an audio/video component (ex.: Video CD player) with "karaoke" — singing along — function, use the audio signal attenuating cord supplied with this receiver. If not, sound may be distorted.

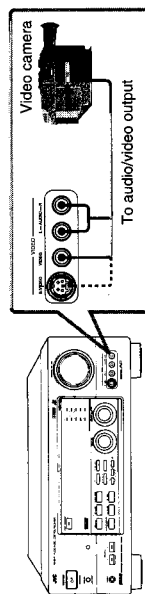
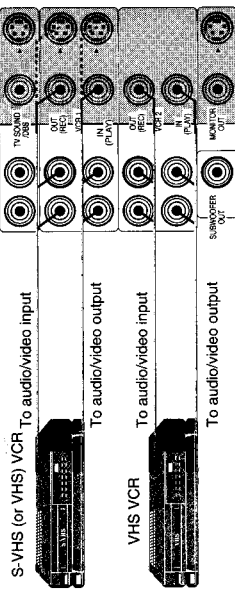
- Notes:**
- Use the video components of the PAL color system.
  - When connecting the TV to the TV SOUND/DBS jacks, DO NOT connect to these video input terminals.
  - When connecting the DBS tuner to the TV SOUND/DBS jacks, change the source name, which will be shown on the display when selected as the source, to "DBS." See page 18 for details.
  - To enjoy Dolby Digital with the DBS tuner as the source, connect the DBS tuner using the method described in "Digital connections" on page 12.

Getting Started

Connecting DVD player



Connecting VCRs



Note:

To enjoy Dolby Digital with the DVD player as the source, connect the DVD player, using the method described in "Digital connections" on page 12.

Digital connections

This receiver is equipped with three DIGITAL IN terminals — one digital coaxial terminal and two digital optical terminals. To enjoy Dolby Digital, you have to connect the source components using the DIGITAL IN terminals. You can connect any component to any one of the digital terminals using the digital coaxial cable (not supplied) or digital optical cable (not supplied).

DBS tuner



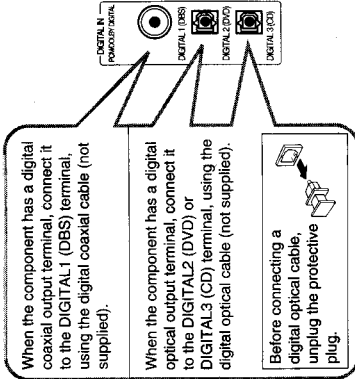
DVD player



CD player



MD recorder



Notes:

- When shipped from the factory, the DIGITAL IN terminals has been set for use with the following components.
  - DIGITAL 1 (coaxial): For DBS tuner
  - DIGITAL 2 (optical): For DVD player
  - DIGITAL 3 (optical): For CD player
- When you want to operate the CD player or MD recorder using the COMPU LINK remote control system, connect the target component also as described in "Analog connections" (see page 9).

IMPORTANT:

- When connecting the DVD player or the DBS tuner using the digital terminal, you also need to connect it to the video jack (either composite video terminal or S-video terminal) on the rear. Without connecting it to the video jack, you can view no playback picture.
- After connecting the above components using the DIGITAL IN terminals, set the following correctly if necessary.
  - Select the digital input mode correctly. For details, see "Selecting the Input Mode" on page 18.
  - Set the digital input (DIGITAL IN) terminal setting correctly. For details, see "Digital Input (DIGITAL IN) Terminal Setting" on page 20.

## Getting Started

### Connecting the Power Cord

Before plugging the receiver into an AC outlet, make sure that all connections have been made.

1. Plug the power cord into an AC outlet.
2. Press **⓪ POWER** to set it in the **—ON** position. The STANDBY lamp lights up. A small amount of power is always consumed.



To shut off the power completely Press **⓪ POWER** to set it in the **■ OFF** position.

Keep the power cord away from the connecting cables and the antenna. The power cord may cause noise or screen interference. We recommend that you use a coaxial cable to connect the antenna, since it is well-shielded against interference.

### The difference between the **⓪ POWER** switch and the **STANDBY/ON** $\odot/\updownarrow$ button

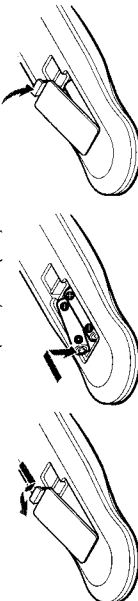
- The **⓪ POWER** switch is the mains supply switch, allowing the receiver to connect to the mains supply. To shut off the power completely, press the **⓪ POWER** switch to set it in the **■ OFF** position.
- The **STANDBY/ON**  $\odot/\updownarrow$  button is a functional on/off (standby) switch, and does not disconnect the receiver from the mains supply. A small amount of power is consumed even in standby mode for the receiver to accept signals from the remote control.

### Putting Batteries in the Remote Control

Before using the remote control, put two supplied batteries first. When using the remote control, aim the remote control directly at the remote sensor on the receiver.

1. On the back of the remote control, remove the battery cover as illustrated.
2. Insert batteries. Make sure to observe the proper polarity: (+) to (+) and (-) to (-).
3. Replace the cover.

R03 (UM-4)AAA (24F)



If the range or effectiveness of the remote control decreases, replace the batteries. Use two R03 (UM-4)AAA (24F) type dry-cell batteries.

## Basic Operations

The following operations are commonly used when you play any sound source.

### IMPORTANT:

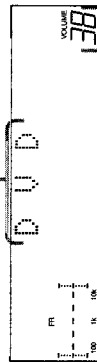
When using the Remote Control, check to see if its remote control mode selector is set to the correct position:  
To operate an audio system, TV, and VCR, set it to "AUDIO/TV/VCR."  
To operate a CATV converter and DBS tuner, set it to "CATV/DBS."

### Turning the Power On and Off (Standby)

#### On the front panel:

To turn on the power, press STANDBY/ON  $\odot/\updownarrow$ . The STANDBY lamp goes off. The name of the current source (or station frequency) appears on the display.

Current source name appears



Current volume level is shown here

To turn off the power (into standby mode), press STANDBY/ON  $\odot/\updownarrow$  again. The STANDBY lamp lights up.

#### From the remote control:

To turn on the power, press AUDIO  $\odot/\updownarrow$ . The STANDBY lamp goes off. The name of the current source (or station frequency) appears on the display.

To turn off the power (into standby mode), press AUDIO  $\odot/\updownarrow$  again. The STANDBY lamp lights up.

### Selecting the Source to Play

#### On the front panel:

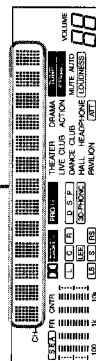
Turn SOURCE SELECTOR until the source name you want appears on the display.

As you turn the selector, the source changes as follows:

→ CD → PHONO → TAPE/MD → FM → AM → DVD → VIDEO → VCR2 → VCR1 → TV SOUND/DBS

The selected source lamp also lights up.

Selected source name appears



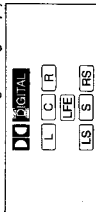
Source lamps on the front panel

### Note:

Pressing the STANDBY/ON  $\odot/\updownarrow$  button again turns off the power (into standby mode) and lights the STANDBY lamp. A small amount of power is consumed in standby mode. To turn the power off completely, press the **⓪ POWER** switch to set it in the **■ OFF** position on the front panel.

### What are the following indicators?

When you select the source encoded with Dolby Digital and start playback, the following indicators light up on the display to show the signal being input to this receiver. (Only the indicators for the received signals light up.)



L: Left front channel  
R: Right front channel  
C: Center channel  
LS: Left rear channel  
RS: Right rear channel (monaural)  
LFE: Subwoofer channel

### Note:

When connecting an MD recorder (to the TAPE/MD jacks), and a DBS tuner (to the TV SOUND/DBS jacks), change the source name appears on the display. For details, see page 18.

## Basic Operations

### From the remote control:

Press one of the source selecting buttons directly.

- DVD Selects the DVD player.
- VCR1 Selects the video component connected to the VCR1 jacks.
- VCR2 Selects the video component connected to the VCR2 jacks.
- VIDEO Selects the video component connected to the VIDEO jacks.
- CD\* Selects the CD player.
- TAPE/MD\* Selects the cassette deck or the MD recorder.
- PHONO\* Selects the turntable.
- FM/AM\* Selects an FM and AM broadcast.

Each time you press the button, the band alternates between FM and AM.

- TV/DBS Selects TV sounds when the remote control selector is set to "AUDIO/TV/VCR."
- Selects the DBS tuner when the remote control selector is set to "CATV/DBS."

### Selecting different sources for picture and sound

You can watch picture from a video component while listening to sound from another component.

1. Press SOUND SELECT briefly while viewing the picture from a video component such as the VCR or DVD player, etc.

"SOUND SELECT" appears on the display.

2. Turn SOURCE SELECTOR to select the sound (except the TV sound), while the indication of the above step is still on the display.

### From the remote control:

Press one of the audio source selecting buttons (CD, TAPE/MD, PHONO, FM/AM), while viewing the picture from a video component such as the VCR or DVD player, etc.

### Adjusting the Volume

#### On the front panel:

To increase the volume, turn MASTER VOLUME clockwise.  
To decrease the volume, turn it counterclockwise.

When you turn MASTER VOLUME rapidly, the volume level also changes rapidly.  
When you turn MASTER VOLUME slowly, the volume level also changes slowly.

#### From the remote control:

To increase the volume, press VOLUME +.  
To decrease the volume, press VOLUME -.

### Selecting the Front Speakers

#### On the front panel only:

When you have connected two pairs of the front speakers, you can select which to use.

Press SPEAKERS 1 or SPEAKERS 2 to select the speaker to use.

Each time you press the button, the lamp on the respective button turns on and off. When the lamp on either button lights up, the respective speakers are activated.

#### IMPORTANT:

You can activate two pairs of the front speakers at the same time only when no signals are sent to the center and rear speakers. Otherwise, activating one pair of the speakers deactivates the other.

#### Listening only with headphones

1. Connect a pair of headphones to the PHONES jack on the front panel.
2. Press SPEAKERS 1 and/or 2 so that no lamps on the buttons are turned on.

### Muting the Sound

#### From the remote control only:

Press MUTE to mute the sound through all speakers and headphones connected.

"MUTE" appears on the display and the volume turns off (the volume level indicator also goes off).

To restore the sound, press MUTE again so that "OFF" appears on the display. Turning MASTER VOLUME or pressing VOLUME +/- also restores the sound at the previous volume level.

### Recording a Source

You can record any source playing through the receiver to the cassette deck or the MD recorder connected to the TAPE/MD jacks and the VCRs connected to the VCR1 and VCR2 jacks at the same time.

While recording, you can listen to the selected sound source at whatever sound level you like, without affecting the sound levels of the recording.



#### Note:

If you use any of the DSP modes other than the 3D-PHONIC modes and "HEADPHONE" with both front speakers activated, the speakers connected to the FRONT SPEAKERS terminals are deactivated.

#### CAUTION:

Be sure to turn down the volume before connecting or putting on headphones, as high volume can damage both the headphones and your hearing.

#### Note:

You cannot shut off the sound through the subwoofer using the SPEAKERS 1 and 2 buttons.



#### Note:

The output volume level and SEA modes cannot affect the recording.

#### IMPORTANT:

When recording the digital source, turn off the DSP mode.

## Basic Operations

English

### Attenuating the Input Signal

When the input level of the playing source through the analog terminals is too high, the sounds will be distorted. If this happens, you need to attenuate the input signal level to prevent the sound distortion.

#### On the front panel only:

Press and hold **SOUND SELECT/INPUT ATT.** until "INPUT ATT ON" appears on the display. The ATT indicator also lights up on the display.

Each time you press and hold the button, the input attenuator mode turns on ("INPUT ATT ON") and off ("INPUT NORMAL"). You can set input attenuator mode separately for each source.



### Adjusting the Subwoofer Output Level

You can adjust the subwoofer output level if you have selected "YES" for the "SUBWOOFER" (see page 19). Once it has been adjusted, the receiver memorizes the adjustment.

#### On the front panel:

1. Press **BALANCE/SURROUND ADJUST** repeatedly until "SUBWFR LEVEL" appears on the display. The display changes to show the current setting.

2. Turn **MULTI JOG** to adjust the subwoofer output level (-10 dB to +10 dB), while the indication of the previous step is still on the display.



#### From the remote control:

1. Press **SOUND CONTROL**. 10 keys are activated for sound adjustments.

2. Press **SUBWOOFER +/-** to adjust the subwoofer output level (-10 dB to +10 dB).



## Basic Settings

Some of the following settings are required after connecting and positioning your speakers in your listening room, while others will make operations easier.

English

### IMPORTANT:

When using the Remote Control, check to see if its remote control mode selector is set to the correct position: To operate this receiver, set it to "AUDIO/TV/VCR" (except when selecting the DBS tuner as the source).



### Changing the Source Name

When you have connected an MD recorder to the TAPE/MD jacks or the DBS tuner to the TV SOUND/DBS jacks on the rear panel, Change the source name shown on the display when you select the MD recorder or DBS tuner as the source.

#### On the front panel only:

1. When changing the source name from "TAPE" to "MD":
  - Turn **SOURCE SELECTOR** until "TAPE" appears.
  - When changing the source name from "TV SOUND" to "DBS":
  - Turn **SOURCE SELECTOR** until "TV SOUND" appears.



2. Press and hold **LOUDNESS/SOURCE NAME** until "ASSGN. MD" or "ASSGN. DBS" appears on the display.

To change the source names to "TAPE" or "TV SOUND," repeat the same procedure above (in step 1, select "MD" or "DBS"; then press and hold **SOURCE NAME**).

### Selecting the Input Mode

When you have connected some components such as CD player, MD recorder, DVD player and the DBS tuner using digital terminals (see page 12), you need to change the input mode for these components to the digital input.

#### On the front panel:

1. Turn **SOURCE SELECTOR** until the source (CD, MD, DBS, or DVD) for which you want to change the input mode from analog input to digital input.
2. Press **DIGITAL INPUT** to change the input mode. Each time you press the button, the input mode alternates between the digital input and analog input.



#### From the remote control:

1. Press the source selecting button (CD, TAPE/MD, TV/DBS, or DVD) for which you want to change the input mode from analog input to digital input.
2. Press **ANALOG/DIGITAL** to change the input mode. Each time you press the button, the input mode alternates between the digital input and analog input.



### Note:

Without changing the source name, you can still use the connected components. However, there may be some inconvenience.

- "TAPE" or "TV SOUND" will appear on the display when you select the MD recorder or DBS tuner.
- You cannot use the digital input (see below) for the MD recorder and the DBS tuner.
- You cannot use the COMPU LINK remote control system (see page 50) to operate the MD recorder.

### Note:

Once you have set the digital input for these components, it is always used every time you select these components as the source.

# Basic Settings

## Adjusting the Front Speaker Output Balance

If the sounds you hear from the front right and left speakers are unequal, you can adjust the speaker output balance.

### On the front panel only:

1. Press **BALANCE/SURROUND ADJUST** repeatedly until "L/R BALANCE" appears on the display. The display changes to show the current setting.
2. Turn **MULTI JOG** to adjust the balance, while the indication of the previous step is still on the display.
  - Turning it clockwise decreases the left channel output.
  - Turning it counterclockwise decreases the right channel output.



## Setting the Subwoofer Information

Register whether or not you have connected a subwoofer.

### On the front panel only:

1. Press **SETTING** repeatedly until "SUBWOOFER" appears on the display. The display changes to show the current setting.
2. Turn **MULTI JOG** to register whether you have connected a subwoofer or not, while the indication of the previous step is still on the display. As you turn it, the subwoofer setting alternates between "YES" and "NO."



|     |  |
|-----|--|
| YES | Select this when you use a subwoofer.        |
| NO  | Select this when you do not use a subwoofer. |

## Listening at Low Volume (Loudness)

Human ears are not sensitive to bass at low volume. To compensate for this, the loudness function automatically boosts the bass level as you lower the volume.

### On the front panel only:

- Press **LOUDNESS/SOURCE NAME** briefly to select the loudness function.
- Each time you press the button, the loudness function turns on ("LOUDNESS ON") and off ("LOUDNESS OFF").
- Select "LOUDNESS ON" to activate the loudness function.
- The **LOUDNESS** indicator lights up on the display.
- Select "LOUDNESS OFF" to cancel it.
- The indicator goes off.

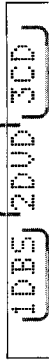


## Digital Input (DIGITAL IN) Terminal Setting

When you use the digital input terminals, you have to register what components are connected to which terminals (DIGITAL IN 1/2/3).

### On the front panel only:

1. Press **SETTING** repeatedly until "DIGITAL IN" appears on the display. The display changes to show the current setting. DIGITAL 2 terminal setting



DIGITAL 1 terminal setting      DIGITAL 3 terminal setting



### 2. Turn **MULTI JOG** to select the appropriate digital terminal setting, while the indication of the previous step is still on the display.

- As you turn it, the display changes to show the following:
- ≡ 1 DBS 2 DVD 3 CD ≡ 1 MD 2 DVD 3 CD ≡ 1 MD 2 DBS 3 CD
  - ≡ 1 MD 2 DBS 3 DVD ≡ 1 CD 2 DVD 3 MD ≡ 1 CD 2 DBS 3 MD
  - ≡ 1 CD 2 DBS 3 DVD ≡ 1 DVD 2 CD 3 MD ≡ 1 DVD 2 DBS 3 MD
  - ≡ 1 DVD 2 DBS 3 CD ≡ 1 DBS 2 CD 3 MD ≡ DBS 2 DVD 3 MD
- (back to the beginning)

## Setting the Speakers for the DSP Modes

To obtain the best possible surround sound of the DSP modes, you have to register the information about the speakers arrangement after all connections are completed.

### Front, Center, and Rear Speaker Setting

Register the sizes of the other speakers.

### On the front panel only:

1. Press **SETTING** repeatedly until "FRONT SPK" (Front Speaker), "CENTER SPK" (Center Speaker) or "REAR SPK" (Rear Speaker) appears on the display. The display changes to show the current setting.
2. Turn **MULTI JOG** to select the appropriate item about your front, center and rear speakers, while the indication of the previous step is still on the display. As you turn it, the display changes to show the following:
  - ← LARGE ↔ SMALL → NONE



|       |  |
|-------|--|
| LARGE | Select this when the speaker size is relatively large.                                   |
| SMALL | Select this when the speaker size is relatively small.                                   |
| NONE  | Select this when you have not connect a speaker. (Not selectable for the front speakers) |

**Note:**  
When shipped from the factory, the DIGITAL IN terminals can be used as the digital input for the following components.

- DIGITAL 1 (coaxial): For DBS tuner.
- DIGITAL 2 (optical): For DVD player.
- DIGITAL 3 (optical): For CD player.

**Note:**  
When you change your speakers, you need to register the information about the speakers again.

**Notes:**

- If the size of the cone speaker unit built in your speaker is greater than 12 cm (4 3/4 inches), select "LARGE," and if it is smaller than 12 cm (4 3/4 inches), select "SMALL."
- If you have selected "NO" for the subwoofer setting above, you can only select "LARGE" for the front speaker setting.

## Basic Settings

### Center Delay Time Setting

Register the delay time of the sound from the center speaker, comparing that of the sound from the front speakers.  
If the distance from your listening point to the center speaker is equal to that to the front speakers, select 0 msec. As the distance to the center speaker becomes shorter, increase the delay time.

#### On the front panel:

1. Press SETTING repeatedly until "CENTER DELAY" appears on the display.  
The display changes to show the current setting.
2. Turn MULTI JOG to select the delay time of the center speaker output, while the indication of the previous step is still on the display.
  - Turn it clockwise to increase the delay time from 0 msec ("C. DELAY 0ms") to 5 msec ("C. DELAY 5ms").
  - Turn it counterclockwise to decrease the delay time from 5 msec ("C. DELAY 5ms") to 0 msec ("C. DELAY 0ms").

### Rear Delay Time Setting

Register the delay time of the sound from the rear speakers, comparing that of the sound from the front speakers.  
If the distance from your listening point to the rear speakers is equal to that to the front speakers, select 0 msec. As the distance to the rear speakers becomes shorter, increase the delay time.

#### On the front panel:

1. Press SETTING repeatedly until "REAR DELAY" appears on the display.  
The display changes to show the current setting.
2. Turn MULTI JOG to select the delay time of the rear speaker output, while the indication of the previous step is still on the display.
  - Turn it clockwise to increase the delay time from 0 msec ("R. DELAY 0ms") to 15 msec ("R. DELAY 15ms").
  - Turn it counterclockwise to decrease the delay time from 15 msec ("R. DELAY 15ms") to 0 msec ("R. DELAY 0ms").

### Crossover Frequency Setting

Small speaker cannot reproduce the bass sound very well. So, if you have used a small speaker any for the front, center, or rear channels, this receiver automatically reallocate the bass elements, originally assigned to the channel for which you have connected the small speaker, to another channel (for which you have connected the large speaker).  
To use this function properly, you need to set this crossover frequency level according to the size of the small speaker connected.

#### On the front panel only:

1. Press SETTING repeatedly until "CROSSOVER FRQ" (Crossover Frequency) appears on the display.  
The display changes to show the current setting.

#### Note:

- 1 msec increase (or decrease) in delay time corresponds to 30 cm (11 1/16 inches) decrease (or increase) in distance.

#### Notes:

- 1 msec increase (or decrease) in delay time corresponds to 30 cm (11 1/16 inches) decrease (or increase) in distance.
- It is recommended that the rear delay time for Dolby Digital be set to 5 msec.

2. Turn MULTI JOG to select the crossover frequency level according to the size of the small speaker connected, while the indication of the previous step is still on the display.  
As you turn it, the display changes to show the following:  
→ CROSS: 80Hz → CROSS: 100Hz → CROSS: 120Hz →

|                     |  |
|---------------------|--|
| <b>CROSS: 80Hz</b>  | Select this when the cone speaker unit built in the speaker is about 12 cm (4 7/16 inches).  |
| <b>CROSS: 100Hz</b> | Select this when the cone speaker unit built in the speaker is about 10 cm (3 15/16 inches). |
| <b>CROSS: 120Hz</b> | Select this when the cone speaker unit built in the speaker is about 8 cm (3 1/16 inches).   |

### Low Frequency Effect Attenuator Setting

If the bass sound is distorted while playing back a source using Dolby Digital, follow the procedure below.

#### On the front panel only:

1. Press SETTING repeatedly until "LFE ATT" (Low Frequency Effect Attenuator) appears on the display.  
The display changes to show the current setting.
2. Turn MULTI JOG to select the low frequency effect attenuator level, while the indication of the previous step is still on the display.  
As you turn it, the display changes to show the following:  
LFE ATT: 0dB → LFE ATT: 10dB

|                      |   |
|----------------------|---|
| <b>LFE ATT: 0dB</b>  | Normally select this.                         |
| <b>LFE ATT: 10dB</b> | Select this when the bass sound is distorted. |

### Dynamic Range Compression Setting

You can compress the dynamic range (difference between maximum sound and minimum sound) of the reproduced sound. This is useful when enjoying surround sound at night.

#### On the front panel only:

1. Press SETTING repeatedly until "D. RANGE COMP." (Dynamic Range Compression) appears on the display.  
The display changes to show the current setting.
2. Turn MULTI JOG to select the appropriate item about the compression level, while the indication of the previous step is still on the display.  
As you turn it, the display changes to show the following:  
→ COMP.: OFF → COMP.: MID → COMP.: MAX →

|                   |   |
|-------------------|---|
| <b>COMP.: OFF</b> | Select this when you want to enjoy surround with its full dynamic range. (No effect applied.) |
| <b>COMP.: MID</b> | Select this when you want to reduce the dynamic range a little. (Factory setting.)            |
| <b>COMP.: MAX</b> | Select this when you want to apply the compression effect fully. (Useful at night.)           |

#### Note:

This function takes effect only when playing back a source using the Dolby Digital.  
However, if you have selected "LARGE" for all speakers (see page 20), this function will not take effect.

**Note:**  
This function takes effect only when playing back a source using the Dolby Digital.

**Note:**  
This function takes effect only when playing back a source using the Dolby Digital.

## One Touch Operation

This receiver can memorize the optimum sound settings for each playing source.

### About the One Touch Operation

JVC's One Touch Operation function is used to assign and store different sound settings for each different playing source. By using this function, you do not have to change the settings every time you change the source. The stored settings for the newly selected source are automatically recalled.

The following can be stored for each source:

- Volume level (see page 15)
- Input attenuator mode (see page 17)
- Subwoofer output level (see page 17)
- Input mode (see page 18)
- Balance (see page 19)
- Loudness (see page 19)
- SEA modes (see page 28)
- DSP modes
  - 3D-PHONIC mode settings (see page 31)
  - DAP mode settings (see page 34)
  - Surround mode settings (see page 36 and 39)

### Using the One Touch Operation

**On the front panel only:**

**To store the sound settings**

1. Press **ONE TOUCH OPERATION**. The **ONE TOUCH OPERATION** lamp lights up, then the previously memorized settings are recalled.
2. Adjust the sound using the functions listed above. The newly adjusted settings are memorized.



**To recall the sound settings**

With the **ONE TOUCH OPERATION** lamp lit, the settings for the currently selected source is recalled when the source is selected.

**To cancel the One Touch Operation function**

Press **ONE TOUCH OPERATION** so that the lamp goes off. (Even though the One Touch Operation function is canceled, the recalled sound effects remain active.)

**Note:**  
If the source is FM or AM, you can assign a different setting for each band.

## Receiving Radio Broadcasts

You can browse through all the stations or use the preset function to go immediately to a particular station.

### IMPORTANT:

When using the Remote Control, check to see if its remote control mode selector is set to the correct position:  
To operate this receiver, set it to "AUDIO/TV/VCR" (except when selecting the DBS tuner as the source).



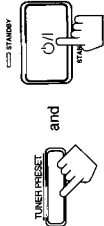
### Setting the AM Tuner Interval Spacing

Some countries space AM stations 9 kHz apart, and other countries use 10 kHz spacing. When shipped, the spacing is set to 9 kHz.

**On the front panel only:**

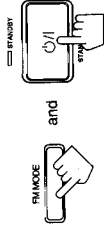
**To select the 10 kHz interval:**

Be sure the receiver is turned off, but is plugged into an AC outlet and **POWER** is pressed to set it in the **-ON** position. Hold down **TUNER PRESET** and press **STANDBY/ON**. "10K STEP" appears on the display for about three seconds. Now the 10 kHz interval is selected.



**To change back to the 9 kHz interval:**

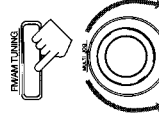
Be sure the receiver is turned off, but is plugged into an AC outlet and **POWER** is pressed to set it in the **-ON** position. Hold down **FM MODE** and press **STANDBY/ON**. "9K STEP" appears on the display for about three seconds. Now the 9 kHz interval is selected.



### Tuning in Stations Manually

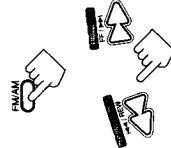
**On the front panel:**

1. Press **FM/AM TUNING** to select the band. Each time you press the button, the band alternates between FM and AM.
2. Turn **MULTI JOG** until you find the frequency you want.
  - Turning it clockwise increases the frequency.
  - Turning it counterclockwise decreases the frequency.



**From the remote control:**

1. Press **FM/AM** to select the band. Each time you press the button, the band alternates between FM and AM.
2. Press **TUNING DOWN** or **TUNING UP** repeatedly until you find the frequency you want.



- Notes:**
- When you turn **MULTI JOG** quickly or hold the **TUNING UP** or **TUNING DOWN** in step 2, the frequency keeps changing until a station is tuned in.
  - When a station of sufficient signal strength is tuned in, the **TUNED** indicator lights up on the display. When an FM stereo program is received, the **STEREO** indicator also lights up.



## Receiving Radio Broadcasts

### Using Preset Tuning

Once a station is assigned to a channel number, the station can be quickly tuned. You can preset up to 40 stations at random.

#### To store the preset stations

##### On the front panel only:

1. Tune in the station you want to preset (see page 24). If you want to store the FM reception mode for this station, select the FM reception mode you want. See page 26 for details.
2. Press **TUNER/SEA MEMORY**. "CH:" appears and the channel number position starts flashing on the display for about 5 seconds.
3. Turn **MULTI JOG** to select a channel number while the channel number position is flashing.
4. Press **TUNER/SEA MEMORY** again while the selected channel number is flashing on the display. The selected channel number stops flashing. The station is assigned to the selected channel number.
5. Repeat steps 1 to 4 until you store all the stations you want.



#### To erase a stored preset station

Storing a new station on a used number erases the previously stored one.

#### To tune in a preset station

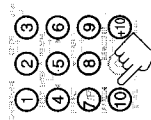
##### On the front panel:

1. Press **TUNER PRESET**.
2. Turn **MULTI JOG** to select a preset channel.



##### From the remote control:

1. Press **FM/AM**. Each time you press the button, the band alternates between FM and AM.
2. Press **10 keys** to select a preset channel number.
  - For channel number 5, press 5.
  - For channel number 15, press +10 then 5.
  - For channel number 20, press +10 then 10.
  - For channel number 30, press +10, +10, then 10.



#### Note:

You can use the 10 keys on the remote control to select the preset number. When using the 10 keys, be sure that they are activated for tuner, not for the CD and others. (See page 58.)

#### Note:

When you use the 10 keys on the remote control, be sure that they are activated for tuner, not for the CD and others. (See page 58.)

### Selecting the FM Reception Mode

When an FM stereo broadcast is hard to receive or noisy, set the FM reception mode to "MONO." (When shipped from the factory, this mode has been set to "AUTO.") You can change the FM reception mode while receiving an FM broadcast.

Press **FM MODE** on the front panel or **FM MODE/MUTE** on the remote control.

Each time you press the button, the FM reception mode alternates between "AUTO" and "MONO."



|              |   |
|--------------|---|
| <b>AUTO:</b> | When a program is broadcasted in stereo, you will hear stereo sound; when in monaural, you will hear monaural sounds. This mode is also useful to suppress static noise between stations. The MUTE AUTO indicator lights up on the display. |
| <b>MONO:</b> | Reception will be improved although you will lose the stereo effect. In this mode, you will hear noise while tuning into the stations. The MUTE AUTO indicator goes off on the display.   |

#### Notes:

- You can store the FM reception mode for each preset station.
- When using the **FM MODE/MUTE** button, be sure that the 10 keys are activated for tuner, not for the CD and others. (See page 58.)

## Receiving Radio Broadcasts

English

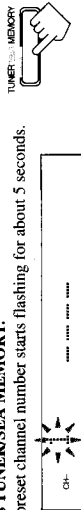
### Assigning Names to Preset Stations

You can assign a name of up to four characters to each preset station. When a preset station is tuned in, its assigned name will appear on the display.

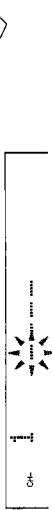
#### On the front panel only:

1. Tune in a preset station.  
See page 25 for details.

2. Press **TUNER/SEA MEMORY**.  
The preset channel number starts flashing for about 5 seconds.



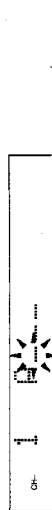
3. Press **TUNER PRESET**, while the preset channel number is flashing.  
The first character position starts flashing.



4. Turn **MULTI JOG** to select the first character, while the first character position is flashing.  
You can use characters listed below.



5. Press **TUNER PRESET**, while a character you want is flashing.  
The next (or previous) character position starts flashing.



6. Repeat steps 4 and 5 to enter up to four characters.

7. Press **TUNER/SEA MEMORY** while the last selected character is flashing after you have assigned a name.

#### To erase the input characters

Insert spaces using the same procedure described above.

**Available characters**

The diagram shows a circular dial with letters A through Z and a numeric keypad with digits 0 through 9. A hand is shown turning the dial to select a character. Below the dial, a display shows a four-character name with the last character flashing.

## Using the SEA Modes

English

The SEA (Sound Effect Amplifier) modes give you control of the way your music sounds.

### IMPORTANT:

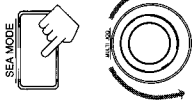
When using the Remote Control, check to see if its remote control mode selector is set to the correct position:  
To operate this receiver, set it to "AUDIO/TV/VCR" (except when selecting the DBS tuner as the source).



### Selecting Your Favorite SEA Mode

#### On the front panel:

1. Press **SEA MODE**.  
The display changes to show the current setting.
2. Turn **MULTI JOG** until the mode you want appears on the display, while the indication of the previous step is still on the display.  
As you turn it, the SEA mode changes as follows:  
SEA ROCK ← SEA MUSICAL → SEA MOVIE → SEA COUNTRY → SEA OFF → SEA USERMODE → SEA JAZZ



|                      |  |
|----------------------|--|
| <b>SEA ROCK:</b>     | Gives a heavy sound. Both high and low frequencies are boosted.                                    |
| <b>SEA MUSICAL:</b>  | Enhance the mid-frequency range, which the human voice is mostly made up of.                       |
| <b>SEA MOVIE:</b>    | Adds breadth to sounds so you feel like you are in a movie theater.                                |
| <b>SEA COUNTRY:</b>  | Enhances the high-frequency range so that instruments such as the violin and banjo are emphasized. |
| <b>SEA JAZZ:</b>     | Gives a feeling of a live atmosphere. Good for acoustic music.                                     |
| <b>SEA USERMODE:</b> | Your original SEA adjustment (see page 29).  |
| <b>SEA OFF:</b>      | No SEA mode is applied (see below).  |

#### To cancel the SEA mode

Turn **MULTI JOG** until "SEA OFF" appears in step 2 above. The SEA indicator goes off from the display.

#### From the remote control:

1. Press **SOUND CONTROL**.  
10 keys are activated for sound adjustments.
2. Press **SEA MODE** repeatedly until the SEA mode you want appears on the display.  
Each time you press the button, the SEA mode changes as follows:  
SEA ROCK ← SEA MUSICAL → SEA MOVIE → SEA COUNTRY → SEA OFF → SEA USERMODE → SEA JAZZ



#### To cancel the SEA mode

Press **SEA MODE** until "SEA OFF" appears in step 2 above. The SEA indicator goes off from the display.

### Notes:

- The SEA modes cannot be used for recording.
- When the SEA mode is turned on, the SEA indicator lights up on the display.
- When the SEA mode is used with the DAP mode (see page 34), sounds may be distorted. If this happens, turn off the DAP mode or decrease the effect level of the DAP mode.

### Note:

- When the SEA mode is turned on, the SEA indicator lights up on the display.

## Using the SEA Modes

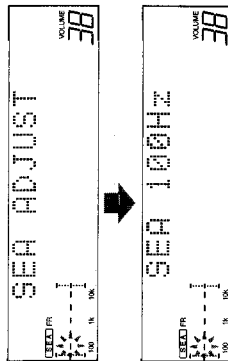
### Creating Your Own SEA Mode

You can adjust and store your own SEA adjustment into memory (SEA USERMODE).

#### On the front panel only:

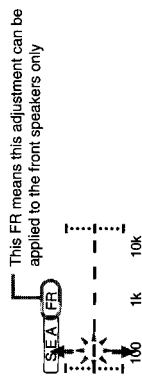
If you do not want to store your adjustment, but rather want to adjust the SEA temporarily, skip step 4 below.

1. Press SEA ADJUST repeatedly until the frequency range (100Hz, 1kHz or 10kHz) you want appears on the display.



2. Turn MULTI JOG to adjust the SEA level of the selected frequency range, while the indication of the previous step is still on the display.

- Turning it clockwise increases the level.
- Turning it counterclockwise decreases the level.



This FR means this adjustment can be applied to the front speakers only

3. Repeat step 1 and 2 to adjust other frequency ranges if necessary.

4. Press TUNER/SEA MEMORY, while the indication of the previous step is still on the display. Your adjustment is stored into the SEA USERMODE.



#### To recall your own SEA adjustment

See page 28.

#### To erase a stored adjustment

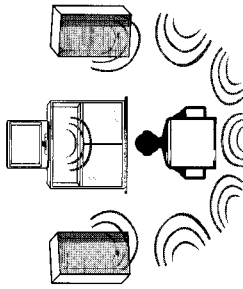
Storing a new adjustment into SEA USERMODE erases the previously stored one.

## Using the DSP Modes

The built-in Surround Processor provides three types of the DSP (Digital Signal Processor) mode — 3D-PHONIC mode, DAP (Digital Acoustic Processor) mode and Surround mode (Dolby Digital, Dolby Pro Logic and JVC's Theater Surround.)

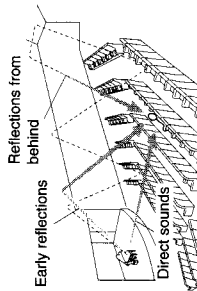
### On the 3D-PHONIC mode

The 3D-PHONIC mode gives you such a nearly surround effect as it is reproduced through the Dolby Surround decoder, which is widely used to reproduce sounds with a feeling of movement like those experienced in movie theaters. The 3D-PHONIC mode is the result of research on sound localization technology carried out at JVC for many years and makes it possible to reproduce the surround sound with only two front speakers.



### On the DAP mode




The sound heard in a concert hall or club consists of direct sound and indirect sound — early reflections and reflections from behind. Direct sounds reach the listener directly without any reflection. On the other hand, indirect sounds are delayed by the distances of the ceiling and walls. These direct sounds and indirect sounds are the most important elements of the acoustic surround effects. The DAP mode can create these important elements, and gives you a real "being there" feeling.

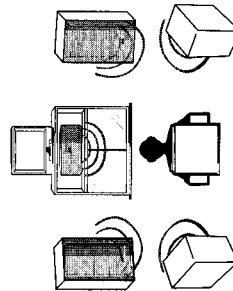


### On Surround mode



With this receiver, you can use two types of the surround mode.

#### Dolby Surround (Dolby Digital and Dolby Pro Logic)

Used to watch the soundtracks of software encoded with Dolby Digital (bearing the mark ) or with Dolby Surround (bearing the mark ) or with Dolby Surround (bearing the mark ) ). Dolby Digital and Dolby Pro Logic can be selected automatically according to software played back.



#### JVC's Theater Surround

In order to reproduce a more realistic sound field in your listening room while playing soundtracks of software encoded with Dolby Digital (bearing the mark ) or with Dolby Surround (bearing the mark ) ), Theater Surround has been designed to create a real "being there" feeling.

#### Notes:

- The DSP modes has no effect on monaural sources.
- You can not use the two types of the DSP modes at the same time.

#### IMPORTANT:

When recording the digital source, turn off the DSP mode.

#### Note:

To enjoy the software encoded with Dolby Digital, you must connect the source component using the digital terminal on the rear of this receiver.

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


## Using the DSP Modes

### IMPORTANT:




When using the Remote Control, check to see if its remote control mode selector is set to the correct position:  
**To operate this receiver, set it to "AUDIO/TV/VCR"** (except when selecting the DBS tuner as the source).



### Using the 3D-PHONIC Modes

When using the 3D-PHONIC modes, you need only two front speakers to reproduce the soundtracks of software encoded with Dolby Digital (bearing the mark ) or with Dolby Surround (bearing the mark ) or with Dolby Surround (bearing the mark ) .

#### On the front panel:

1. Select and play the source encoded with Dolby Digital (bearing the mark ) or with Dolby Surround (bearing the mark ) .  
 • When you play back the source encoded with Dolby Digital and select the digital input for that source, the  DIGITAL indicator lights up on the display.



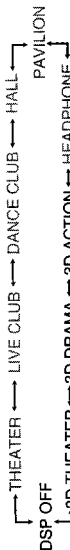
2. Press DSP MODE.  
 The current DSP mode appears on the display.

3. Turn MULTI JOG until the mode — 3D ACTION (or 3D DIGITAL), 3D DRAMA, or 3D THEATER — you want appears on the display, while the indication of the previous step is still on the display.  
 As you turn it, the DSP modes change as follows (the 3D-PHONIC and DSP indicators also light up on the display):

When the digital input is selected to play the source encoded with Dolby



For other sources:



|                    |  |
|--------------------|--|
| <b>3D ACTION:</b>  | Best for action and war movies — where the action is fast and explosive. |
| <b>3D DRAMA:</b>   | Best for dramas and romantic movies — where the action is slow and soft. |
| <b>3D THEATER:</b> | Reproduces the sound field of a theater.                                 |
| <b>3D DIGITAL:</b> | Reproduces multi-sound source encoded with Dolby Digital.                |
| <b>DSP OFF:</b>    | No DSP mode is applied.  |

For the other modes, see pages 34 and 39.

If you need to make any adjustment, go to the following steps.

### BALANCE/SURROUND ADJUST



4. Press BALANCE/SURROUND ADJUST repeatedly until "DSP EFFECT" appears on the display.  
 The display changes to show the current setting.

5. Turn MULTI JOG to select the effect level, while the indication of the previous step is still on the display.  
 As you turn it, the effect level changes as follows:



As the number increases, the selected 3D-PHONIC mode becomes stronger.


#### To cancel the 3D-PHONIC mode

Turn MULTI JOG until "DSP OFF" appears in step 3.  
 The 3D-PHONIC and DSP indicators go off from the display.

#### Notes:

- To enjoy the software encoded with Dolby Digital, you must connect the source component using the digital terminal on the rear of this receiver.
- The 3D-PHONIC mode is not used with the other DSP modes such as the DAP mode and the Surround mode. When the 3D-PHONIC mode is turned on, the other DSP mode, if used, will be turned off.

#### Notes on the indications:



- The indicator of the selected DSP mode also lights up on the display while selecting.
- The PRO LOGIC indicator lights up when the Dolby Pro Logic decoder built in this receiver is activated.
- The Dolby Pro Logic decoder is used not only for the analog sources but also for the sources encoded with Dolby Digital in the following cases:
  - When only front channel signals are encoded.
  - When front channel and monaural rear channel signals are encoded.
 While the Dolby Pro Logic is activated for this type of Dolby Digital source, the  DIGITAL indicator goes off.

#### Note:

Once you have adjusted the 3D-PHONIC modes, it is memorized for each 3D-PHONIC mode.


## Using the DSP Modes

### From the remote control:

1. Select and play the source encoded with Dolby Digital (bearing the mark ) or with Dolby Surround (bearing the mark ).  
  - When you play back the source encoded with Dolby Digital and select the digital input for that source, the **DIGITAL** indicator lights up on the display.

2. Press **SURROUND MODE** repeatedly until the mode — **3D ACTION** (or **3D DIGITAL**), **3D DRAMA**, or **3D THEATER** — you want appears on the display.  
 Each time you press the button, the DSP modes change as follows (the **3D-PHONIC** and **DSP** indicators also light up on the display):

When the digital input is selected to play the source encoded with Dolby Digital:


 **DOLBY DIGITAL** → **DIG-THEATER** → **OFF** → **3D DIGITAL** → **HEADPHONE**

For other sources:

 **PRO LOGIC** → **THEATER** → **LIVE CLUB** → **DANCE CLUB** → **HALL** → **PAVILION**  
 **3D THEATER** → **3D DRAMA** → **3D ACTION** → **HEADPHONE**

3. Press **SOUND CONTROL**.  
 10 keys are activated for sound adjustments.

4. Press **EFFECT** to select the effect level.  
 Each time you press the button, the effect level changes as follows:

 **DSP EFFECT 1** → **DSP EFFECT 2** → **DSP EFFECT 3** → **DSP EFFECT 4** → **DSP EFFECT 5**

As the number increases, the selected **3D-PHONIC** mode becomes stronger.

### To cancel the 3D-PHONIC mode

Press **SURROUND MODE** repeatedly until "OFF" appears. The **3D-PHONIC** and **DSP** indicators go off from the display.

### Note:

- The **3D-PHONIC** mode is not used with the other **DSP** modes such as the **DAP** mode and the **Surround mode**. When the **3D-PHONIC** mode is turned on, the other **DSP** mode, if used, will be turned off.

### Notes on the indications:

- The indicator of the selected **DSP** mode also lights up on the display while selecting.
- The **PRO LOGIC** indicator lights up when the **Dolby Pro Logic** decoder built in this receiver is activated.
- The **Dolby Pro Logic** decoder is used not only for the analog sources but also for the sources encoded with **Dolby Digital** in the following cases:
  - When only front channel signals are encoded.
  - When front channel and monaural rear channel signals are encoded.
 While the **Dolby Pro Logic** is activated for this type of **Dolby Digital** source, the **DIGITAL** indicator goes off.

### Note:

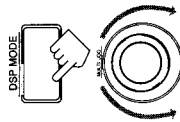
Once you have adjusted the **3D-PHONIC** modes, it is memorized for each **3D-PHONIC** mode.

### Using the DAP Modes





You can use five **DAP** modes — "Live Club, Dance Club, Hall, Pavilion, and Headphones" for any source. Among the **DAP** modes, "Headphones" is very special. It can create the same stereo sound as you listen through the speakers off air while listening to a source using headphones. So, you can feel as if you were not using the headphones and listening to music in a room. If the digital input is selected to play the source encoded with **Dolby Digital**, you can only select "Headphones."

### On the front panel:

1. Press **DSP MODE**.  
 The current **DSP** mode appears on the display.
2. Turn **MULTI JOG** until the mode (**LIVE CLUB**, **DANCE CLUB**, **HALL**, **PAVILION**, or **HEADPHONE**) you want appears on the display, while the indication of the previous step is still on the display. The **DSP** indicator also lights up on the display.



As you turn it, the **DSP** modes change as follows:

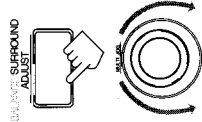
 **THEATER** → **LIVE CLUB** → **DANCE CLUB** → **HALL** → **PAVILION**  
 **DSP OFF**  
 **3D THEATER** → **3D DRAMA** → **3D ACTION** → **HEADPHONE**  
 When the digital input is selected to play the source encoded with **Dolby Digital**:  
 **DIG-THEATER** → **HEADPHONE** → **DSP OFF** → **3D DIGITAL**

|                    |  |
|--------------------|--|
| <b>LIVE CLUB:</b>  | Gives the feeling of a live music club with a low ceiling.     |
| <b>DANCE CLUB:</b> | Gives a throbbing bass beat.                                   |
| <b>HALL:</b>       | Gives clear vocal and the feeling of a concert hall.           |
| <b>PAVILION:</b>   | Gives the spacious feeling of a pavilion with a high ceiling.  |
| <b>HEADPHONE:</b>  | Gives a spacious stereo effect when listening with headphones. |
| <b>DSP OFF:</b>    | No <b>DSP</b> mode is applied.                                 |

For the other modes, see pages 31 and 39.

If you need to make any adjustment, go to the following steps.

3. Adjust the speaker output levels as follows.
  - 1) Press **BALANCE/SURROUND ADJUST** repeatedly until one of the indications appears on the display. "REAR L LEVEL": To adjust the left speaker level. "REAR R LEVEL": To adjust the right speaker level.
  - 2) Turn **MULTI JOG** to adjust the selected speaker output level (from -10 dB to +10 dB), while the indication of the previous step is still on the display.
  - 3) Repeat 1) and 2) to adjust the other speaker output levels.



### Notes:

- The **DAP** mode is not used with the other **DSP** modes such as the **3D-PHONIC** mode and the **Surround mode**. When the **DAP** mode is turned on, the other **DSP** mode, if used, will be turned off.
- When the **DAP** mode is used with the **SEA** mode (see page 28), sounds may be distorted. If this happens, turn off the **SEA** mode.

### Note:

The indicator of the selected **DSP** mode also lights up on the display while selecting.

### Note:

When you select "HEADPHONE", you cannot go to the following steps. No adjustments can be made for "HEADPHONE."

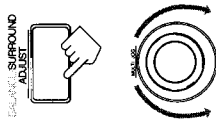
### Note:

You cannot adjust the rear speaker levels when "REAR SPK" is set to "NONE" (see page 20).

Continued to the next page.

## Using the DSP Modes

SURROUND ADJUST



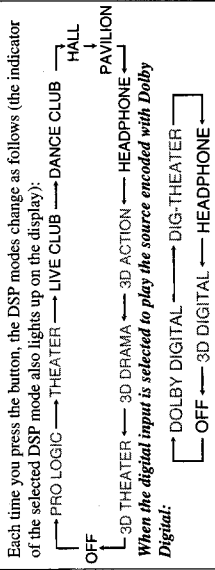
- Adjust the effect level.  
1) Press **BALANCE/SURROUND ADJUST** repeatedly until "DSP EFFECT" appears on the display.  
2) Turn **MULTI JOG** to select the effect level, while the indication of the previous step is still on the display. As you turn it, the effect level changes as follows:  
 DSP EFFECT 1 → DSP EFFECT 2 → DSP EFFECT 3 → DSP EFFECT 4 → DSP EFFECT 5 → DSP EFFECT 4 → DSP EFFECT 3 → DSP EFFECT 2 → DSP EFFECT 1  
 As the number increases, the selected DAP mode becomes stronger.

### To cancel the DAP mode

Turn **MULTI JOG** until "DSP OFF" appears in step 2. The DSP indicator goes off from the display.

### From the remote control:

- Press **SURROUND MODE** repeatedly until the mode you want appears on the display.  
The DSP indicator also lights up on the display.



If you need to make any adjustment, go to the following steps.

- Press **SOUND CONTROL**.  
10 keys are activated for sound adjustments.
- Adjust the speaker output levels as follows:
  - To adjust the left rear speaker level, press **REAR-L +/-**.
  - To adjust the right rear speaker level, press **REAR-R +/-**.
- Press **EFFECT** to select the effect level.  
Each time you press the button, the effect level changes as follows:  
 DSP EFFECT 1 → DSP EFFECT 2 → DSP EFFECT 3 → DSP EFFECT 4 → DSP EFFECT 5 → DSP EFFECT 4 → DSP EFFECT 3 → DSP EFFECT 2 → DSP EFFECT 1  
 As the number increases, the selected DAP mode becomes stronger.

### To cancel the DAP mode

Press **SURROUND MODE** repeatedly until "OFF" appears. The DSP indicator goes off from the display.

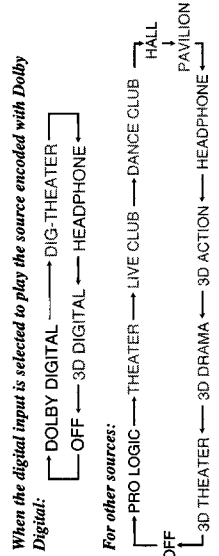
## Using the Dolby Digital and Dolby Pro Logic Modes

Once you have adjusted the Dolby Digital and Dolby Pro Logic modes, this receiver memorizes adjustment for each mode.  
To activate the Dolby Digital and Dolby Pro Logic modes, follow the procedure below.

### From the remote control:

- Select and play the source encoded with Dolby Digital (bearing the mark ) or with Dolby Surround (bearing the mark ).  
When you play back the source encoded with Dolby Digital and select the digital input for that source, the **DIGITAL** indicator lights up on the display.
- Press **SURROUND MODE** repeatedly until "PRO LOGIC" or "DOLBY DIGITAL" appears on the display.  
Dolby Digital or Dolby Pro Logic is automatically selected according to the source being played back.  
When **Dolby Pro Logic** is selected, the lamp on the **DOLBY SURROUND** button (on the front panel) lights red.  
When **Dolby Digital** is selected, the lamp on the **DOLBY SURROUND** button (on the front panel) lights green.

Each time you press the button, the DSP modes change as follows:



If you need to make any adjustment, go to the following steps.

- Press **SOUND CONTROL**.  
10 keys are activated for sound adjustments.

Continued to the next page.

### Notes:

- To enjoy the software encoded with Dolby Digital, you must connect the source component using the digital terminal on the rear of this receiver.
- When the signals come into this receiver through the analog connection from the source component, "PRO LOGIC" is automatically selected.
- The Surround mode is not used with the other DSP modes such as the DAP mode and 3D-PHONIC mode. When the Surround mode is turned on, the other DSP mode, if used, will be turned off.

### Notes on the indications:

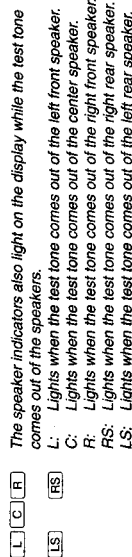
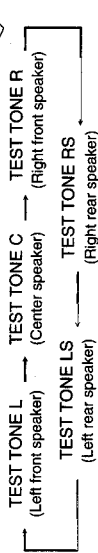
- The **PRO LOGIC** indicator lights up when the Dolby Pro Logic decoder built in this receiver is activated.
  - The **Dolby Pro Logic** decoder is used not only for the analog sources but also for the sources encoded with Dolby Digital in the following cases:
    - When only front channel signals are encoded.
    - When front channel and monaural rear channel signals are encoded.
- While the **Dolby Pro Logic** is activated for this type of Dolby Digital source, the **DIGITAL** indicator goes off.

## Using the DSP Modes

English

### 4. Press TEST to start checking the speaker output balance.

"TEST TONE L" starts flashing on the display, and a test tone comes out of the speakers in the following order:



The speaker indicators also light on the display while the test tone comes out of the speakers.

- L: Lights when the test tone comes out of the left front speaker.
- C: Lights when the test tone comes out of the center speaker.
- R: Lights when the test tone comes out of the right front speaker.
- RS: Lights when the test tone comes out of the right rear speaker.
- LS: Lights when the test tone comes out of the left rear speaker.

### IMPORTANT:

- Output the test tone while playing back an audio source. With the DVD digital input selected as the source, no test tone may come out while no signal is input to this receiver.
- Test tone comes out even while playing back a source encoded with Dolby Digital. In this case, the PRO LOGIC indicator lights up on the display.

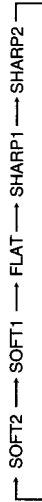
### 5. Adjust the speaker output levels as follows:

- To adjust the center speaker level, press CNTR +/-.
- To adjust the left rear speaker level, press REAR-L +/-.
- To adjust the right rear speaker level, press REAR-R +/-.

### 6. Press TEST again to stop the test tone.

### 7. Press CNTR TONE to select the center tone level you want.

The center tone adjustment affects the mid-frequency range, which the human voice is mostly made up of. Each time you press the button, the display changes to show the following:



A adjusted level are also shown on the equalizer display.

This CNTR means this adjustment can be applied to the center speaker only. (Example: When "FLAT" is selected.)



To make the dialogue clearer, select "SHARP1" (little) or "SHARP2" (much). To make the dialogue softer, select "SOFT1" (little) or "SOFT2" (much). When "FLAT" is selected, no adjustment is applied.

### To cancel the Surround mode

Press SURROUND MODE repeatedly until "OFF" appears.

### On the front panel:

You can also use the buttons on the front panel to adjust the Dolby Digital and Dolby Pro Logic modes. However, no test tone is available when using the buttons on the front panel. So, make adjustments while listening to the sound of the source played back.

- Select and play the source encoded with Dolby Digital (bearing the mark ) or with Dolby Surround (bearing the mark ). When you play back the source encoded with Dolby Digital and select the digital input for that source, the DIGITAL indicator lights up on the display.
- Press DOLBY SURROUND so that the lamp on the button lights up. "SURROUND ON" appears on the display. Dolby Digital or Dolby Pro Logic is automatically selected according to the source being played back. When Dolby Pro Logic is selected, the lamp on the DOLBY SURROUND button lights red. When Dolby Digital is selected, the lamp on the DOLBY SURROUND button lights green.

If you need to make any adjustment, go to the following steps.

- Adjust the speaker output levels as follows.
  - Press BALANCE/SURROUND ADJUST repeatedly until one of the indications appears on the display. "CENTER LEVEL": To adjust the center speaker level. "REAR L LEVEL": To adjust the left speaker level. "REAR R LEVEL": To adjust the right speaker level.
  - Turn MULTI JOG to adjust the selected speaker output level (from -10 dB to +10 dB), while the indicator of the previous step is still on the display.
  - Repeat 1) and 2) to adjust the other speaker output levels.
- Press BALANCE/SURROUND ADJUST repeatedly until "CENTER TONE" appears on the display. The display changes to show the current setting.

- Turn MULTI JOG to select the center tone level you want, while the indication of the previous step is still on the display.

The center tone adjustment affects the mid-frequency range, which the human voice is mostly made up of. As you turn it, the display changes to show the following:

SOFT2 → SOFT1 → FLAT → SHARP1 → SHARP2

To make the dialogue clearer, select "SHARP1" (little) or "SHARP2" (much). To make the dialogue softer, select "SOFT1" (little) or "SOFT2" (much). When "FLAT" is selected, no adjustment is applied.

### To cancel the Surround mode

Press DOLBY SURROUND again so that "SURROUND OFF" appears.

### Notes:

- To enjoy the software encoded with Dolby Digital, you must connect the source component using the digital terminal on the rear of this receiver.
- When the signals come into this receiver through the analog connection from the source component, "PRO LOGIC" is automatically selected.
- The Surround mode is not used with the other DSP modes such as the DAP mode and 3D-PHONIC mode. When the Surround mode is turned on, the other DSP mode, if used, will be turned off.

### Notes on the indications:

- The PRO LOGIC indicator lights up when the Dolby Pro Logic decoder built in this receiver is activated.
- The Dolby Pro Logic decoder is used not only for the analog sources but also for the sources encoded with Dolby Digital in the following cases:
  - When only front channel signals are encoded.
  - When front channel and monaural rear channel signals are encoded.
- While the Dolby Pro Logic is activated for this type of Dolby Digital source, the DIGITAL indicator goes off.

### Notes:

- You cannot adjust the center speaker level when "CENTER SPK" is set to "NONE" (see page 20).
- You cannot adjust the rear speaker levels when "REAR SPK" is set to "NONE" (see page 20).



English

## Using the DSP Modes

### Using the Theater Surround Mode

Once you have adjusted the Theater Surround mode, this receiver memorizes the adjustment. To activate the Theater Surround mode, follow the procedure below.

#### From the remote control:

1. Select and play the source encoded with Dolby Digital (bearing the mark ) or with Dolby Surround (bearing the mark ).  
When you play back the source encoded with Dolby Digital and select the digital input for that source, the **DIGITAL** indicator lights up on the display.
2. Press **SURROUND MODE** repeatedly until "THEATER" or "DIG-THEATER" appears on the display.  
The DSP and THEATER indicators also light up on the display.

Each time you press the button, the DSP modes change as follows:

When the digital input is selected to play the source encoded with Dolby Digital:

DOLBY DIGITAL → DIG-THEATER →  
 OFF → 3D DIGITAL → HEADPHONE

For other sources:

PRO LOGIC → THEATER → LIVE CLUB → DANCE CLUB → HALL  
 OFF → 3D THEATER → 3D DRAMA → 3D ACTION → HEADPHONE → PAVILION

If you need to make any adjustment, go to the following steps.

#### 3. Press SOUND CONTROL.

10 keys are activated for sound adjustments.

4. Press **TEST** to start checking the speaker output balance.  
"TEST TONE L" starts flashing on the display, and a test tone comes out of the speakers in the following order:

TEST TONE L → TEST TONE C → TEST TONE R  
(Left front speaker) (Center speaker) (Right front speaker)  
 TEST TONE LS → TEST TONE RS  
(Left rear speaker) (Right rear speaker)

The speaker indicators also light on the display while the test tone comes out of the speakers.

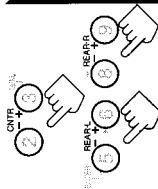
- L: Lights when the test tone comes out of the left front speaker.
- C: Lights when the test tone comes out of the center speaker.
- R: Lights when the test tone comes out of the right front speaker.
- RS: Lights when the test tone comes out of the right rear speaker.
- LS: Lights when the test tone comes out of the left rear speaker.

#### IMPORTANT:

- Output the test tone while playing back an audio source.  
With the DVD digital input selected as the source, no test tone may come out while no signal is input to this receiver.
- Test tone comes out even while playing back a source encoded with Dolby Digital. In this case, the PRO LOGIC indicator lights up on the display.

#### 5. Adjust the speaker output levels as follows:

- To adjust the center speaker level, press **CNTR +/-**.
- To adjust the left rear speaker level, press **REAR-L +/-**.
- To adjust the right rear speaker level, press **REAR-R +/-**.



#### Notes:

- You can adjust the speaker output levels and center tone without outputting the test tone.
- You cannot adjust the center speaker level when "CENTER SPK" is set to "NONE" (see page 20).
- You cannot adjust the rear speaker levels when "REAR SPK" is set to "NONE" (see page 20).

#### 6. Press TEST again to stop the test tone.

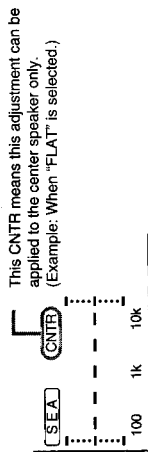


#### Note:

The center tone cannot be adjusted when "CENTER SPK" is set to "NONE" (see page 20).

SOFT2 → SOFT1 → FLAT → SHARP1 → SHARP2

Adjusted level are also shown on the on the equalizer display.



This CNTR means this adjustment can be applied to the center speaker only.  
(Example: When "FLAT" is selected.)

- To make the dialogue clearer, select "SHARP1" (little) or "SHARP2" (much).  
To make the dialogue softer, select "SOFT1" (little) or "SOFT2" (much).  
When "FLAT" is selected, no adjustment is applied.

#### 8. Press EFFECT to select the effect level.

Each time you press the button, the effect level changes as follows:

DSP EFFECT 1 → DSP EFFECT 2 → DSP EFFECT 3  
 DSP EFFECT 5 ← DSP EFFECT 4

As the number increases, the surround effect becomes stronger.

#### To cancel the Theater Surround mode

Press SURROUND MODE repeatedly until "OFF" appears.  
The DSP and THEATER indicators goes off.



#### Note:

You cannot adjust the effect level when "REAR SPK" is set to "NONE" (see page 20).

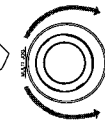


## On the front panel:

You can also use the buttons on the front panel to adjust the Theater Surround mode. However, no test tone is available when using the buttons on the front panel. So, make adjustments while listening to the sound of the source played back.

1. Select and play the source encoded with Dolby Digital (bearing the mark ) or with Dolby Surround (bearing the mark ).
  - When you play back the source encoded with Dolby Digital and select the digital input for that source, the **DI DIGITAL** indicator lights up on the display.

2. Press **DSP MODE**.
  - The current DSP mode appears on the display.



3. Turn **MULTI JOG** until "THEATER" or "DIG-THEATER" appears on the display, while the indication of the previous step is still on the display.
  - The **DSP** and **THEATER** indicators also light up on the display.

As you turn it, the DSP modes change as follows:

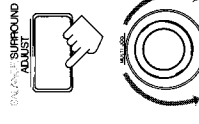
When the digital input is selected to play the source encoded with Dolby Digital:

DIG-THEATER ↔ HEADPHONE  
 ↳ DSP OFF ↔ 3D DIGITAL

For other sources:

THEATER ↔ LIVE CLUB ↔ DANCE CLUB ↔ HALL  
 DSP OFF ↳ 3D THEATER ↔ 3D DRAMA ↔ 3D ACTION ↔ HEADPHONE  
 ↳ PAVILION

If you need to make any adjustment, go to the following steps.



4. Adjust the speaker output levels as follows.
  - 1) Press **BALANCE/SURROUND ADJUST** repeatedly until one of the indications appears on the display.
    - "CENTER LEVEL": To adjust the center speaker level.
    - "REAR L LEVEL": To adjust the left speaker level.
    - "REAR R LEVEL": To adjust the right speaker level.
  - 2) Turn **MULTI JOG** to adjust the selected speaker output level (from -10 dB to +10 dB), while the indication of the previous step is still on the display.
  - 3) Repeat (1) and (2) to adjust the other speaker output levels.

5. Press **BALANCE/SURROUND ADJUST** repeatedly until "CENTER TONE" appears on the display.
  - The display changes to show the current setting.
6. Turn **MULTI JOG** to select the center tone level you want, while the indication of the previous step is still on the display.
  - The center tone adjustment affects the mid-frequency range, which the human voice is mostly made up of. As you turn it, the display changes to show the following:
    - SOFT2 ↔ SOFT1 ↔ FLAT ↔ SHARP1 ↔ SHARP2

**Note:**  
 You cannot adjust the effect level when "REAR SPK" is set to "NONE" (see page 20).

## Notes on the indications:

- The **PRO LOGIC** indicator lights up when the Dolby Pro Logic decoder built in this receiver is activated.
- The Dolby Pro Logic decoder is used not only for the analog sources but also for the sources encoded with Dolby Digital in the following cases:
  - When only front channel signals are encoded.
  - When front channel and monaural rear channel signals are encoded.
- While the Dolby Pro Logic is activated for this type of Dolby Digital source, the **DI DIGITAL** indicator goes off.

## Notes:

- You cannot adjust the center speaker level when "CENTER SPK" is set to "NONE" (see page 20).
- You cannot adjust the rear speaker levels when "REAR SPK" is set to "NONE" (see page 20).

7. Press **BALANCE/SURROUND ADJUST** repeatedly until "DSP EFFECT" appears on the display.
  - The display changes to show the current setting.
8. Turn **MULTI JOG** to select the effect level, while the indication of the previous step is still on the display.
  - As you turn it, the effect level changes as follows:
    - DSP EFFECT 1 ↔ DSP EFFECT 2 ↔ DSP EFFECT 3  
 ↳ DSP EFFECT 4 ↔ DSP EFFECT 5
  - As the number increases, the surround effect becomes stronger.

## To cancel the Theater Surround mode

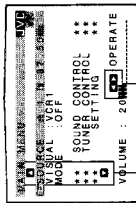
Turn **MULTI JOG** until "DSP OFF" appears in step 3. The **DSP** and **THEATER** indicators goes off.

# Using the On-Screen Menus

You can use the menus on the TV screen to control the receiver. To use this function, you need to connect the TV to the MONITOR OUT jack on the rear panel (see page 10), and set the TV's input mode to the proper position to which the receiver is connected.

## Selecting the Source to Play (Also see page 14)

1. Press any button of ON SCREEN CONTROL  $\Delta$  /  $\nabla$  /  $\triangleleft$  /  $\triangleright$  once. The MAIN MENU appears on the TV.



Shows the buttons you can use on the current menu. In this case, use  $\Delta$  /  $\nabla$  to move  $\square$  up and down, and  $\triangleleft$  /  $\triangleright$  to select, adjust or set the item.

2. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "SOURCE."
3. Press ON SCREEN CONTROL  $\triangleleft$  /  $\triangleright$  to select the source.
4. When you finish, press EXIT. The menu disappears from the TV.

## Selecting the Different Sources for Picture and Sound

You can view the pictures played back on a video component while listening to any source.

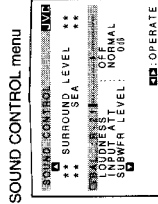
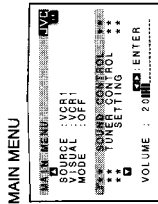
1. Press any button of ON SCREEN CONTROL  $\Delta$  /  $\nabla$  /  $\triangleleft$  /  $\triangleright$  once. The MAIN MENU appears on the TV.
2. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "VISUAL."
3. Press ON SCREEN CONTROL  $\triangleleft$  /  $\triangleright$  to select a different video source.
  - When you select "OSD", see page 51.
4. When you finish, press EXIT. The menu disappears from the TV.

## Using the DSP Modes (Also see pages 31, 34, 36, 39)

1. Press any button of ON SCREEN CONTROL  $\Delta$  /  $\nabla$  /  $\triangleleft$  /  $\triangleright$  once. The MAIN MENU appears on the TV.
2. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "MODE."
3. Press ON SCREEN CONTROL  $\triangleleft$  /  $\triangleright$  to select the DSP mode you want to use.
4. When you finish, press EXIT. The menu disappears from the TV.

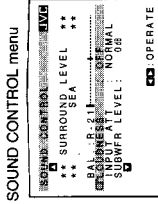
## Adjusting the Front Speaker Output Balance (Also see page 19)

1. Press any button of ON SCREEN CONTROL  $\Delta$  /  $\nabla$  /  $\triangleleft$  /  $\triangleright$  once. The MAIN MENU appears on the TV.
2. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "SOUND CONTROL," then press  $\triangleleft$  /  $\triangleright$ . The SOUND CONTROL menu appears on the TV.
3. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "BAL." (Balance).
4. Press ON SCREEN CONTROL  $\triangleleft$  /  $\triangleright$  to adjust the balance.
5. When you finish, press EXIT repeatedly until the menu disappears from the TV.



## Listening at Low Volume (Loudness) (Also see page 19)

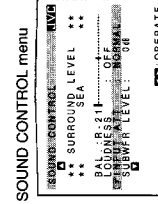
1. Press any button of ON SCREEN CONTROL  $\Delta$  /  $\nabla$  /  $\triangleleft$  /  $\triangleright$  once. The MAIN MENU appears on the TV.
2. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "SOUND CONTROL," then press  $\triangleleft$  /  $\triangleright$ . The SOUND CONTROL menu appears on the TV.
3. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "LOUDNESS."
4. Press ON SCREEN CONTROL  $\triangleleft$  /  $\triangleright$  to turn the loudness "ON" or "OFF."
5. When you finish, press EXIT repeatedly until the menu disappears from the TV.



## Attenuating the Input Signal (Also see page 16)

This function is available only for the sources connected using the analog terminals and takes effect only when the DSP mode is in use.

1. Press any button of ON SCREEN CONTROL  $\Delta$  /  $\nabla$  /  $\triangleleft$  /  $\triangleright$  once. The MAIN MENU appears on the TV.
2. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "SOUND CONTROL," then press  $\triangleleft$  /  $\triangleright$ . The SOUND CONTROL menu appears on the TV.
3. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "INPUT ATT."
4. Press ON SCREEN CONTROL  $\triangleleft$  /  $\triangleright$  to turn the function on ("ATT ON") or off ("NORMAL").
5. When you finish, press EXIT repeatedly until the menu disappears from the TV.



## Using the On-Screen Menus

- Adjusting the Subwoofer Output Level** (Also see page 17)  
You can adjust the subwoofer output level if you have selected "YES" for the "SUBWOOFER" (see page 19).

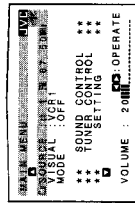
  1. Press any button of ON SCREEN CONTROL  $\Delta$  /  $\nabla$  /  $\triangleleft$  /  $\triangleright$   $\triangleleft$  /  $\triangleright$  once. The MAIN MENU appears on the TV.
  2. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "SOUND CONTROL," then press  $\triangleleft$  /  $\triangleright$ . The SOUND CONTROL menu appears on the TV.
  3. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "SUBWFR LEVEL" (Subwoofer Level).
  4. Press ON SCREEN CONTROL  $\triangleleft$  /  $\triangleright$  to adjust the subwoofer output level.
  5. When you finish, press EXIT repeatedly until the menu disappears from the TV.
- Adjusting the DSP Modes** (Also see pages 31, 34, 36, and 39)  
1. Press any button of ON SCREEN CONTROL  $\Delta$  /  $\nabla$  /  $\triangleleft$  /  $\triangleright$  once. The MAIN MENU appears on the TV.

  2. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "MODE."
  3. Press ON SCREEN CONTROL  $\triangleleft$  /  $\triangleright$  to select the DSP mode you want to adjust.
  4. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "SOUND CONTROL," then press  $\triangleleft$  /  $\triangleright$ . The SOUND CONTROL menu appears.
  5. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "SURROUND LEVEL," then press  $\triangleleft$  /  $\triangleright$ . The SURROUND LEVEL menu appears.
    - If you select "HEADPHONE" in step 3, the SURROUND LEVEL menu will not appear.
  6. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to the item you want to set or adjust, then press ON SCREEN CONTROL  $\triangleleft$  /  $\triangleright$ . On these adjustment menus, you can do the following:

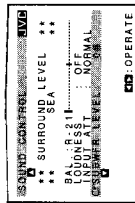
**For 3D-PHONIC modes:**  
"DSP EFFECT": Adjust the effect level.

**For DAP modes (LIVE CLUB, DANCE CLUB, HALL, PAVILION):**  
"REAR L LEVEL": Adjust the left rear speaker output level. \*  
"REAR R LEVEL": Adjust the right rear speaker output level. \*  
"DSP EFFECT": Select the effect level.

### MAIN MENU



### SOUND CONTROL menu



### For Dolby Surround Pro Logic:

- "TEST TONE": Output a test tone.
- "CENTER LEVEL": Adjust the center speaker output level. \*\*
- "REAR L LEVEL": Adjust the left rear speaker output level. \*
- "REAR R LEVEL": Adjust the right rear speaker output level. \*
- "CENTER TONE": Select the center tone level. \*\*

### For Dolby Digital:

- "TEST TONE": Output a test tone.
- "CENTER LEVEL": Adjust the center speaker output level. \*\*
- "REAR L LEVEL": Adjust the left rear speaker output level. \*
- "REAR R LEVEL": Adjust the right rear speaker output level. \*
- "CENTER TONE": Select the center tone level. \*\*

### For Theater Surround and Digital Theater Surround:

- "TEST TONE": Output a test tone.
- "CENTER LEVEL": Adjust the center speaker output level. \*\*
- "REAR L LEVEL": Adjust the left rear speaker output level. \*
- "REAR R LEVEL": Adjust the right rear speaker output level. \*
- "CENTER TONE": Select the center tone level. \*\*
- "DSP EFFECT": Select the effect level. \*

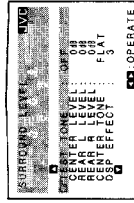
7. When you finish, press EXIT repeatedly until the menu disappears from the TV.

### ■ Selecting Your Favorite SEA Mode

 (Also see page 28)

1. Press any button of ON SCREEN CONTROL  $\Delta$  /  $\nabla$  /  $\triangleleft$  /  $\triangleright$  once. The MAIN MENU appears on the TV.
2. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "SOUND CONTROL," then press  $\triangleleft$  /  $\triangleright$ . The SOUND CONTROL menu appears.
3. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "SEA," then press  $\triangleleft$  /  $\triangleright$ . The SEA menu appears.
4. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "SEA MODE."
5. Press ON SCREEN CONTROL  $\triangleleft$  /  $\triangleright$  to select the SEA mode you want.
6. When you finish, press EXIT repeatedly until the menu disappears from the TV.

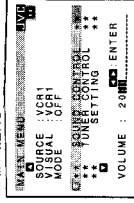
Example:  
SURROUND LEVEL menu  
for Theater Surround



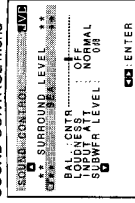
### Notes:

- \* Not displayed when "REAR SPK" is set to "NONE" (see page 20).
- \*\* Not displayed when "CENTER SPK" is set to "NONE" (see page 20).

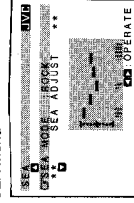
### MAIN MENU



### SOUND CONTROL menu



### SEA menu

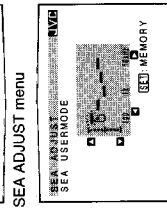
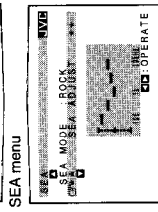
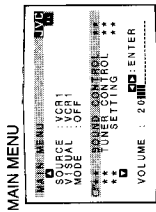


**■ Creating Your Own SEA Mode** (Also see page 29)

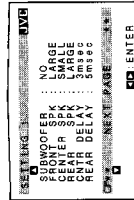
1. Press any button of **ON SCREEN CONTROL**  $\Delta / \nabla / \triangleleft / \triangleright$   $\triangleleft / \triangleright$  once. The MAIN MENU appears on the TV.
2. Press **ON SCREEN CONTROL**  $\Delta / \nabla$  to move  $\square$  to "SOUND CONTROL," then press  $\triangleleft / \triangleright$ . The SOUND CONTROL menu appears.
3. Press **ON SCREEN CONTROL**  $\Delta / \nabla$  to move  $\square$  to "SEA," then press  $\triangleleft / \triangleright$ . The SEA menu appears.
4. Press **ON SCREEN CONTROL**  $\Delta / \nabla$  to move  $\square$  to "SEA ADJUST," then press  $\triangleleft / \triangleright$ . The SEA ADJUST menu appears.
5. Press **ON SCREEN CONTROL**  $\Delta / \nabla / \triangleleft / \triangleright$  to adjust the SEA mode as you want.  
 $\triangleleft / \triangleright$  : Select the frequency ranges.  
 $\Delta / \nabla$  : Adjust the frequency levels.
6. Press **SET** to store the setting into the SEA USERMODE.  
 • If you press **EXIT**, without pressing **SET** in this step, you can return to the SEA menu. (The adjustment you have made is active but not stored.)
7. When you finish, press **EXIT** repeatedly until the menu disappears from the TV.

**■ Basic Settings**

1. Press any button of **ON SCREEN CONTROL**  $\Delta / \nabla / \triangleleft / \triangleright$  once. The MAIN MENU appears on the TV.
2. Press **ON SCREEN CONTROL**  $\Delta / \nabla$  to move  $\square$  to "SETTING," then press  $\triangleleft / \triangleright$ . The SETTING 1 or SETTING 2 menu appears.
3. Press **ON SCREEN CONTROL**  $\Delta / \nabla$  to the setting item you want to adjust.
  - To go to the SETTING 2 menu, move  $\square$  to "NEXT PAGE," then press  $\triangleleft / \triangleright$ .
  - To go back to the SETTING 1 menu, move  $\square$  to "PREVIOUS PAGE," then press  $\triangleleft / \triangleright$ .
 On the SETTING 1 and 2 menus, you can do the following:
  - "SUBWOOFER": Set the subwoofer information (See page 19).
  - "FRONT SPK": Set the front speaker information (See page 20).
  - "CENTER SPK": Set the center speaker information (See page 20).
  - "REAR SPK": Set the rear speaker information (See page 20).
  - "CNTR DELAY": Adjust the delay time of the center speaker output (See page 21).
  - "REAR DELAY": Adjust the delay time of the rear speaker output (See page 21).
  - "CROSSOVER": Set the crossover frequency (See page 21).
  - "LFE ATT": Set the low frequency effect attenuator level (See page 22).
  - "COMP": Set the dynamic range compression (See page 22).
  - "DIGITAL 1/2/3": Set the digital input terminal. (See page 20).



SETTING 1 menu



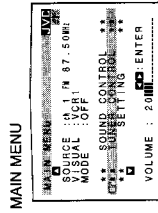
SETTING 2 menu



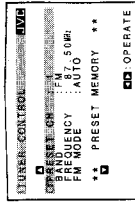
4. Press **ON SCREEN CONTROL**  $\triangleleft / \triangleright$  to set (or adjust) the setting item selected in step 3.
5. When you finish, press **EXIT** repeatedly until the menu disappears from the TV.

**■ Operating the Tuner**

1. Press any button of **ON SCREEN CONTROL**  $\Delta / \nabla / \triangleleft / \triangleright$  once. The MAIN MENU appears on the TV.
2. Press **ON SCREEN CONTROL**  $\Delta / \nabla$  to move  $\square$  to "TUNER CONTROL," then press  $\triangleleft / \triangleright$ . The TUNER CONTROL menu appears.
3. Press **ON SCREEN CONTROL**  $\Delta / \nabla$  to move  $\square$  to the item you want to set or adjust, then press **ON SCREEN CONTROL**  $\triangleleft / \triangleright$ . On the TUNER CONTROL menu, you can do the following:
  - "PRESET CH": Select a preset channel station. (See page 25)
  - "BAND": Select the band. (See page 24)
  - "FREQUENCY": Tune in a station manually. (See page 24)
  - "FM MODE": Select the FM reception mode. (See page 26)
  - "PRESET MEMORY": See "Storing the Preset Stations" below.



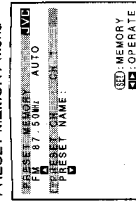
TUNER CONTROL menu



**Note:**

\* Not displayed when an AM station is selected.

PRESET MEMORY menu

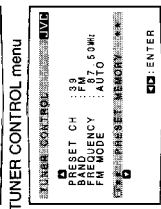
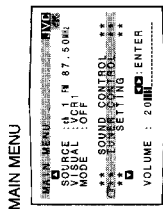


4. When you finish, press **EXIT** repeatedly until the menu disappears from the TV.
5. Press any button of **ON SCREEN CONTROL**  $\Delta / \nabla / \triangleleft / \triangleright$  once. The MAIN MENU appears on the TV.
6. Press **ON SCREEN CONTROL**  $\Delta / \nabla$  to move  $\square$  to "TUNER CONTROL," then press  $\triangleleft / \triangleright$ . The TUNER CONTROL menu appears.
7. Tune into a station on the TUNER CONTROL menu, referring to "Operating the Tuner" above.
8. Press **ON SCREEN CONTROL**  $\Delta / \nabla$  to move  $\square$  to "PRESET MEMORY," then press  $\triangleleft / \triangleright$ . The PRESET MEMORY menu appears.
9. Press **ON SCREEN CONTROL**  $\Delta / \nabla$  to move  $\square$  to "PRESET CH."
10. Press **ON SCREEN CONTROL**  $\triangleleft / \triangleright$  to select a preset station number you want.
11. Press **SET** to store the setting.
12. When you finish, press **EXIT** repeatedly until the menu disappears from the TV.

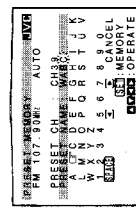
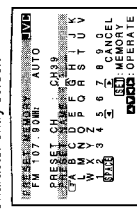
## Using the On-Screen Menus

English

- Assigning Names to the Preset Stations (Also see page 26)  
1. Press any button of ON SCREEN CONTROL  $\Delta$  /  $\nabla$  /  $\leftarrow$  /  $\rightarrow$  once.  
The MAIN MENU appears on the TV.
2. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "TUNER CONTROL," then press  $\leftarrow$  /  $\rightarrow$ .  
The TUNER CONTROL menu appears.
3. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "PRESET CH.," then press  $\leftarrow$  /  $\rightarrow$ .
4. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to select a preset station.
5. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "PRESET MEMORY," then press  $\leftarrow$  /  $\rightarrow$ .  
The PRESET MEMORY menu appears.
6. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "PRESET NAME," then press SET.  
The character entry screen appears.
7. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  /  $\leftarrow$  /  $\rightarrow$  to move  $\square$  in front of a character you want.  
You can also select the following:  
SPACE: To enter space      CANCEL: To erase the character  
 $\leftarrow$  /  $\rightarrow$ : To go back to the previous character position or go to the next character position
8. Press SET to enter the selected character.
9. Repeat steps 7 and 8 to enter up to four characters.
10. Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  /  $\leftarrow$  /  $\rightarrow$  to move  $\square$  to "PRESET NAME," then press SET to store the setting.  
The TUNER CONTROL menu appears again.
11. When you finish, press EXIT repeatedly until the menu disappears from the TV.



PRESET MEMORY menu:  
Character entry screen



## COMPU LINK Remote Control System

English

The COMPU LINK remote control system allows you to operate JVC audio components through the remote sensor on the receiver.

To use this remote control system, you need to connect JVC audio components through the COMPU LINK-3 (SYNCHRO) jacks (see below) in addition to the connections using cables with RCA pin plugs (see page 9) (and a digital cable if you want — see page 12).

- Make sure that the AC power cords of these components are unplugged before connection. Plug the AC power cords only after all connections are complete.



This remote control system allows you to use four functions listed below.

### Remote Control through the Remote Sensor on the Receiver

You can control the connected audio components through the remote sensor on the receiver using this remote control. Aim the remote control directly at the remote sensor on the receiver. For details, see pages 58 and 59.

### Automatic Source Selection

When you press the play ( $\blacktriangleright$ ) button on a connected component or on its own remote control, the receiver automatically turns on and changes the source to the component. On the other hand, if you select a new source on the receiver or the remote control, the selected component begins playing immediately.  
In both cases, the previously selected source continues playing without sound for a few seconds.

### Automatic Power On/Off (Standby): only possible with the COMPU LINK-3 connection

Both the CD player and cassette deck (or MD recorder) turn on and off (standby) along with the receiver.

When you turn on the receiver, the CD player or cassette deck (or MD recorder) will turn on automatically, depending on which component has been previously selected. When you turn off the receiver, both the CD player and cassette deck (or MD recorder) will turn off (standby).

### Synchronized Recording

Synchronized recording means the cassette deck (or MD recorder) starts recording as soon as a CD or a record begins playing.

To use synchronized recording, follow these steps:

- Put a tape in the cassette deck (or an MD in the MD recorder), and a disc in the CD player (or a record on the turntable).
- Press the record ( $\bullet$ ) button and the pause ( $\text{II}$ ) button on the cassette deck (or MD recorder) at the same time.  
This puts the cassette deck (or MD recorder) into recording pause.  
If you do not press the record ( $\bullet$ ) button and pause ( $\text{II}$ ) button at the same time, the synchronized recording feature will not operate.
- Press the play ( $\blacktriangleright$ ) button on the CD player or on the turntable.  
The source changes on the receiver, and as soon as play starts, the cassette deck (or MD recorder) starts recording. When the play ends, the cassette deck (or MD recorder) enters recording pause, and stops about 4 seconds later.

### Notes:

- If your audio component has two COMPU LINK-3 (SYNCHRO) jacks, you can use either one. If it has only one COMPU LINK-3 (SYNCHRO) jack, connect it so that it is the last item in the series of components. (For example, the turntable or CD player in the diagram to the left.)
- To operate the cassette deck or MD recorder using the COMPU LINK remote control system, set the source name correctly. (See page 18.)
- Refer also to the manuals supplied with your audio components.

### Notes:

- During synchronized recording, the selected source cannot be changed.
- If your CD player is playing in program mode, a 4-second blank is recorded between tracks so that the music scan feature of your cassette deck can be used on the recorded tape.
- If the power of any component is shut off during synchronized recording, the COMPU LINK remote control system may not operate properly. In this case, you must start again from the beginning.

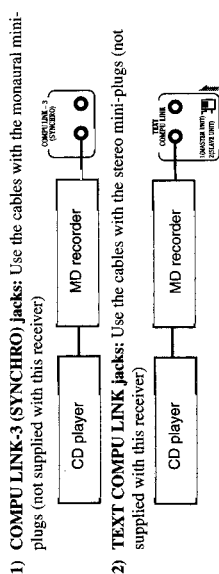
# TEXT COMPU LINK Remote Control System

The TEXT COMPU LINK remote control system has been newly developed to deal with the disc information recorded in the CD Text\* and MDs. Using these information in the discs, you can operate the CD player or MD recorder equipped with the TEXT COMPU LINK remote control system through the receiver.

## CONNECTIONS:

To use this remote control system, you need to connect the CD player and/or MD recorder you want to operate, following the procedures below.

1. If you have already plugged your CD player, MD recorder, and this receiver into the AC outlets, unplug their AC power cords first.
2. Connect your CD player, MD recorder, and this receiver as follows, through the COMPU LINK-3 (SYNCHRO) jacks and TEXT COMPU LINK jacks.



## IMPORTANT:

Set the Master/Slave Selector on the rear to "1(MASTER UNIT)."  
 • "2(SLAVE UNIT)" is just for the serviceman's use. The TEXT COMPU LINK remote control system does not function with the selector set to "2(SLAVE UNIT)."

3. Connect your CD player, MD recorder and this receiver, using the cables with RCA pin plugs (see page 9) and a digital cable if you want — see page 12).
4. Plug the AC power cords of these components above into the AC outlets.
5. When turning on these components for the first time, turn on the connected components first, then turn on this receiver.

## FUNCTIONS:

This remote control system allows you to use the functions listed below.

### Displaying the Disc Information on the TV screen

Disc information such as its performer and disc title (and track titles only when a CD Text is selected) is shown on the TV screen.

### Disc Search: Only for CD Player

This remote control system can allow you to search discs by the performer, disc title, and music genre.

With this disc search, you can easily find the disc you want to play.

### Additional Functions:

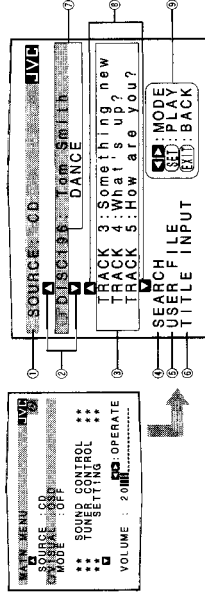
- If your CD player has the User File function, you can select a disc from the groups. \* A "user file" is a group of the discs you make as you like on the CD player.
- If your CD player has the disc memory function, you can input the performer, disc title, and music genre about these normal audio CDs on the TV screen.

## OPERATIONS

To use this remote control system, you need to connect the TV to the MONITOR OUT jack on the rear panel (see page 10), and set the TV's input mode to the proper position to which the receiver is connected. **Make sure you have connected the CD player or MD recorder equipped with the TEXT COMPU LINK remote control system. If not, you cannot use the following functions.**

### Showing the Disc Information on the TV Screen

1. Press any button of ON SCREEN CONTROL  $\Delta / \nabla / \triangleleft / \triangleright$  once. The MAIN MENU appears on the TV.
2. Press ON SCREEN CONTROL  $\Delta / \nabla$  to move  $\square$  to "SOURCE."\*
3. Press ON SCREEN CONTROL  $\triangleleft / \triangleright$  to select "CD" or "MD."
4. Press ON SCREEN CONTROL  $\Delta / \nabla$  to move  $\square$  to "VISUAL."
5. Press ON SCREEN CONTROL  $\triangleleft / \triangleright$  to select "OSD," then press EXIT. The Disc Information screen appears on the TV.



- ① Source name: CD or MD
- ② Select  $\square$  or  $\square$  then press SET to change the disc.
- ③ Track numbers and track titles.
  - The current playing (selected) track is indicated in yellow.
  - When you move  $\square$  to a track number, you can change the track information by pressing  $\triangleleft / \triangleright$ . Each time you press the button, track information alternates between its track title and its performer. (You can also start playing the track by pressing SET.)
- ④ Select this (move  $\square$  in front), then press SET to go to the DISC SEARCH screen (see page 53).
- ⑤ Select this (move  $\square$  in front), then press SET to go to the USER FILE screen (see page 55).
- ⑥ Select this (move  $\square$  in front), then press SET to go to the TITLE INPUT screen (see page 56).
- ⑦ Disc information such as the disc title, performer, and music genre. When this is selected ( $\square$  in front), you can change the disc information by pressing  $\triangleleft / \triangleright$ . Each time you press the button, disc information (see the note) changes.
- ⑧ Select  $\square$  or  $\square$  then press SET to change the track.
- ⑨ Usable buttons and their functions for the current selection. Indication here will be changed what is currently selected ( $\square$  in front) on the screen.

6. When you finish, press EXIT repeatedly until the MAIN MENU appears on the TV.

### To exit from the MAIN MENU:

- 1) Press ON SCREEN CONTROL  $\Delta / \nabla$  to move  $\square$  to "VISUAL."
- 2) Press ON SCREEN CONTROL  $\triangleleft / \triangleright$  to select any one other than "OSD," then press EXIT.

## Notes:

- The on-screen display will not appear about one minute after the power is turned on.
- The on-screen display will disappear in the following case:
  - if no operation is done for about 10 minutes.
  - if you do any operation other than explained in this section.
- To control the MD recorder using the TEXT COMPU LINK remote control system, you have to change the source name shown on the display from "TAPE" to "MD." (See page 18.)
- The number of characters to show the disc information such as the disc title or track title is limited to 32. So if the disc title, for example, is longer than 32 characters, only the first 32 characters are shown.
- Some special characters such as accented letters cannot be displayed correctly.

## Note on ⑦

The following information will appear on the display:

- Disc title
- Performer
- Genre
- Song writer
- Composer
- Arranger
- Message

Only recorded information will be shown. If there is no data, "NO DATA" will appear.

## Note on ⑨

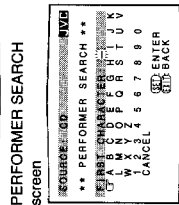
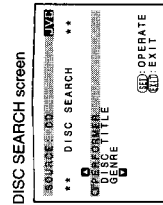
For example, the SET button will be used to start play (PLAY), to go to the next screen (ENTER), and to determine the selection (ENTER).

**Searching a Disc (Only for the CD player)**

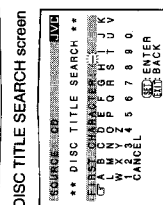
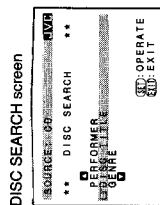
**Search a disc by its performer:**

1. Display the disc information screen by following the procedure on page 52.
2. Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to "SEARCH," then press SET.  
The DISC SEARCH screen appears on the TV.
3. Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to "PERFORMER", then press SET.  
The PERFORMER SEARCH screen appears.
4. Press ON SCREEN CONTROL  $\Delta/\nabla/\leftarrow/\rightarrow$  to move  $\square$  in front of the first character of the performer you want to search, then press SET.  
To correct the incorrect entry, press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  in front of the correct character, then press SET.  
To erase the incorrect entry, press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to CANCEL, then press SET.

5. Press SET again.  
Disc search starts, then the SEARCH RESULT screen, showing the performers, appears.
6. On the SEARCH RESULT screen, you can do the following:
  - Changing the indication of the disc information: Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to a searched disc, then press  $\leftarrow/\rightarrow$ . Each time you press  $\leftarrow/\rightarrow$ , the disc information alternates between its performer and its disc title.
  - Going to the Disc Information screen (see page 52): Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to a searched disc, then press SET.
  - Showing unseen disc information (if more than 5 discs are listed as a result of the search): Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to  $\blacksquare$  (or  $\blacktriangleright$ ), then press SET.
  - Going back to the PERFORMER SEARCH screen: Press EXIT.



**Note**  
Symbols such as @, # or \$ cannot be available for search.

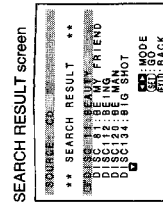


7. Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to "SEARCH," then press SET.  
The DISC SEARCH screen appears on the TV.
8. Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to "DISC TITLE", then press SET.  
The DISC TITLE SEARCH screen appears.
9. Press ON SCREEN CONTROL  $\Delta/\nabla/\leftarrow/\rightarrow$  to move  $\square$  in front of the first character of the disc title you want to search, then press SET.  
To correct the incorrect entry, press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  in front of the correct character, then press SET.  
To erase the incorrect entry, press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to CANCEL, then press SET.

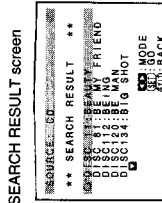
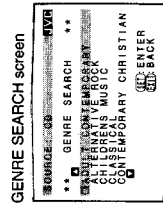
5. Press SET again.  
Disc search starts, then the SEARCH RESULT screen, showing the disc titles, appears.
6. On the SEARCH RESULT screen, you can do the following:
  - Changing the indication of the disc information: Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to a searched disc, then press  $\leftarrow/\rightarrow$ . Each time you press  $\leftarrow/\rightarrow$ , the disc information alternates between its disc title and its performer.
  - Going to the Disc Information screen (see page 52): Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to a searched disc, then press SET.
  - Showing unseen disc information (if more than 5 discs are listed as a result of the search): Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to  $\blacksquare$  (or  $\blacktriangleright$ ), then press SET.
  - Going back to the DISC TITLE SEARCH screen: Press EXIT.

- Search a disc by its genre:**
1. Display the disc information screen by following the procedure on page 52.
  2. Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to "SEARCH," then press SET.  
The DISC SEARCH screen appears on the TV.
  3. Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to "GENRE", then press SET.  
The GENRE SEARCH screen appears.

4. Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to the genre you want to search, then press SET.  
Disc search starts, then the SEARCH RESULT screen, showing the disc titles, appears.
5. On the SEARCH RESULT screen, you can do the following:
  - Changing the indication of the disc information: Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to a searched disc, then press  $\leftarrow/\rightarrow$ . Each time you press  $\leftarrow/\rightarrow$ , the disc information alternates between its disc title and its performer.
  - Going to the Disc Information screen (see page 52): Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to a searched disc, then press SET.
  - Showing unseen disc information (if more than 5 discs are listed as a result of the search): Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to  $\blacksquare$  (or  $\blacktriangleright$ ), then press SET.
  - Going back to the GENRE SEARCH screen: Press EXIT.



**Note**  
Symbols such as @, # or \$ cannot be available for search.



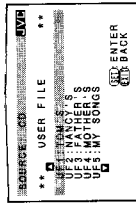
**Using the User File (Only for the CD Player with the User File Function)**

You can use the User File function through this receiver. For the User File function, refer to the manual supplied with your CD player.

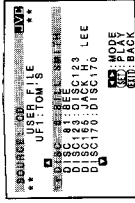
**Using your own User Files:**

1. Display the disc information screen by following the procedure on page 52.
2. Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to "USER FILE," then press SET. The USER FILE screen appears on the TV. To show the unseen user files, press ON SCREEN CONTROL  $\Delta/\nabla$  until they appear.
3. Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to the User File you want, then press SET. The selected User File screen appears on the TV. The disc information shown will be the disc title. (If no disc title information is recorded for the discs, only the disc numbers will be shown.)
4. On this selected User File screen, you can do the following:
  - Changing the indication of the disc information: Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to a disc, then press  $\triangle/\rightarrow$ . Each time you press  $\triangle/\rightarrow$ , the disc information alternates between its disc title and its performer.
  - Starting a disc play: Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to a disc, then press SET.
  - Showing unseen disc information (if more than 5 discs are listed): Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to  $\blacktriangledown$  (or  $\blacktriangleright$ ) and press SET.
  - Going back to the USER FILE screen: Press EXIT.

USER FILE screen



User File 1 screen



**Entering the Disc Information**

**For the CD Player with the disc memory function:**

You can use the disc memory function through this receiver. The disc information (its performer, disc title, and its music genre) of normal audio CDs will be stored into the memory built in the CD player.

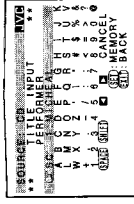
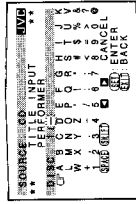
- For the disc memory function, refer to the manual supplied with your CD player.
- The performer, disc title, and music genre information are usually recorded in a CD Text. However, if a CD Text has no genre information recorded in the disc itself, you can input its music genre by yourself.

**Note:** You can enter the TITLE INPUT screens for a CD Text and input its titles. However, you cannot store the titles you have input for a CD Text.

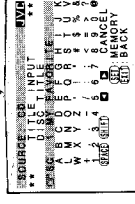
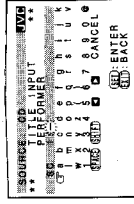
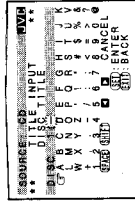
**Example:** Entering the following information for Disc 1  
 Performer: "MICHEAL"  
 Disc title: "MY FAVORITE"

1. Display the disc information screen by following the procedure on page 52.
2. Press ON SCREEN CONTROL  $\Delta/\nabla$  to move  $\square$  to "TITLE INPUT," then press SET. The TITLE INPUT: PERFORMER screen appears on the TV.
3. Press ON SCREEN CONTROL  $\Delta/\nabla/\triangle/\rightarrow$  to move  $\square$  in front of a character you want, then press SET to enter the character.
  - If the current CD is a CD Text, go to step 5 without entering the performer.
 To use the lower case letters, press ON SCREEN CONTROL  $\Delta/\nabla/\triangle/\rightarrow$  to move  $\square$  to [SHIFT], then press SET.  
 To use the upper case letters again, press ON SCREEN CONTROL  $\Delta/\nabla/\triangle/\rightarrow$  to move  $\square$  to [SHIFT], then press SET.
4. Repeat step 3 until you finish putting a name (up to 32 characters) to this User File.
  - To insert a space, press ON SCREEN CONTROL  $\Delta/\nabla/\triangle/\rightarrow$  to move  $\square$  to [SPACE], then press SET.
  - To correct an incorrect character:
    - 1) Press ON SCREEN CONTROL  $\Delta/\nabla/\triangle/\rightarrow$  to move  $\square$  to  $\blacktriangledown$  or  $\blacktriangleright$ , then press SET until the incorrect character is selected.
    - 2) Press ON SCREEN CONTROL  $\Delta/\nabla/\triangle/\rightarrow$  to move  $\square$  to CANCEL, then press SET to erase the character.
    - 3) Press ON SCREEN CONTROL  $\Delta/\nabla/\triangle/\rightarrow$  to move  $\square$  in front of a correct character, then press SET to enter a correct character.
5. Press ON SCREEN CONTROL  $\Delta/\nabla/\triangle/\rightarrow$  to move  $\square$  to "DISC1: MICHEAL (in this example)," then press SET. The TITLE INPUT: DISC TITLE screen appears.
6. Enter the disc title, referring to steps 3 and 4.
  - If the current CD is a CD Text, go to the next step without entering the disc title.

TITLE INPUT: PERFORMER screen



TITLE INPUT: DISC TITLE screen



Continued to the next page.



## TEXT COMPU LINK Remote Control System

- Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  /  $\leftarrow$  /  $\rightarrow$  to move  $\square$  to "DISC1: MY FAVORITE (in this example)," then press SET.  
The TITLE INPUT: DISC 1 GENRE screen appears.
- Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to the genre you want, then press SET.  
The Disc Information screen appears again.  
To show the unseen genres, press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  until they appear.

### For the MD recorder:

You can write the disc information (disc title and song titles) into the disc. You can only write the song title for the song currently selected.

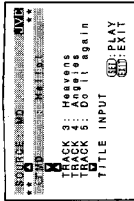
- If you have the CD-MD combination deck, you can also enter the disc information (its performer, disc title, and its music genre) of normal audio CDs into the memory built in the CD-MD combination deck. (To do this, follow the procedure on page 56.)

- Display the disc information screen by following the procedure on page 52.
- Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  to move  $\square$  to "TITLE INPUT," then press SET.  
The DISC TITLE INPUT screen appears on the TV.
- Enter the disc title, referring to steps 3 and 4 on page 56.
  - You can enter up to 32 character for the disc title.
- Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  /  $\leftarrow$  /  $\rightarrow$  to move  $\square$  to the disc title you have just entered, then press SET.  
The disc title is stored into the memory, and the SONG TITLE INPUT screen for the currently selected song appears.
  - You can enter a song title for the song currently selected (indicated in yellow on the TV screen).
- Enter the song title, referring to steps 3 and 4 on page 56.
  - You can enter up to 32 character for the song title.
- Press ON SCREEN CONTROL  $\Delta$  /  $\nabla$  /  $\leftarrow$  /  $\rightarrow$  to move  $\square$  to the song title you have just entered, then press SET.  
The song title is stored into the memory, and the Disc Information screen appears again.

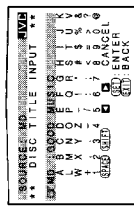
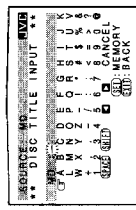
TITLE INPUT: DISC 1 GENRE screen



Disc Information screen



DISC TITLE INPUT screen



## Operating JVC's Audio/Video Components

You can operate JVC's audio and video components with this receiver's remote control, since control signals for JVC components are preset in the remote control.

### IMPORTANT:

- To operate JVC's audio components using this remote control:
- You need to connect JVC audio components through the COMPU LINK-3 (SYNCHRO) jacks (see page 50) in addition to the connections using cables with RCA pin plugs (see page 9) or using digital cables (see page 12).
  - Aim the remote control directly at the remote sensor on the receiver.

### Tuner

After pressing FM/AM (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations:

- FM/AM:**  
 Alternates between FM and AM.  
 Selects a preset channel number directly.  
 For channel number 5, press 5. For channel number 15, press +10, then 5.  
 For channel number 20, press +10, then 10.

### TUNING UP/TUNING DOWN:

Tunes into stations.

**FM MODE/MUTE:** Changes the FM reception mode.

### Sound control section (Amplifier)

You can always perform the following operations (with the remote control mode selector set to "AUDIO/TV/VCR");

**SURROUND MODE:** Changes the DSP modes.

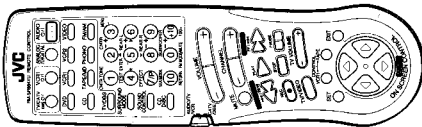
After pressing SOUND CONTROL (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations:

- SEA MODE:** Changes the SEA modes.  
**SUBWOOFER +/-:** Adjusts the subwoofer output level.  
**CNTR +/-:** Adjusts the center speaker output level.  
**REAR-L +/-:** Adjusts the left rear speaker output level.  
**REAR-R +/-:** Adjusts the right rear speaker output level.  
**EFFECT:** Selects the effect level.  
**TEST:** Turns on or off the test tone output.  
**CNTR TONE:** Selects the center tone.

### CD player

After pressing CD (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on a CD player:

- PLAY:**  
 Starts playing.  
 $\leftarrow$  Returns to the beginning of the current (or previous) track.  
 $\rightarrow$  Skips to the beginning of the next track.  
**STOP:**  
 Stops playing.  
**PAUSE:**  
 Pauses playing. To release it, press PLAY.  
 Selects a track number directly.  
 1 - 10, +10:  
 For track number 5, press 5. For track number 15, press +10, then 5. For track number 20, press +10, then 10. For track number 30, press +10, then 10.



### Notes:

- If you use the buttons on the front panel or the menu function to choose a source, the remote control will not operate that source. To operate a source with the remote control, the source must be selected using buttons on the remote control.
- Check to see if its remote control mode selector is set to the correct position. To operate audio system, TVs, and VCRs, set it to "AUDIO/TV/VCR."
- Refer also to the manuals supplied with your components.

### Note:

After adjusting sounds, press the corresponding source selecting button or CD DISC to operate your target source by using 10 keys; otherwise, 10 keys cannot be used for operating your target source.

Operating JVC's Audio/Video Components

**CD player-changer**

After pressing CD DISC (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the CD player-changer:

- PLAY:** Starts playing.
- ◀◀:** Returns to the beginning of the current (or previous) track.
- ▶▶:** Skips to the beginning of the next track.
- STOP:** Stops playing.
- PAUSE:** Pauses playing. To release it, press the PLAY button.
- 1-6, 7/P:** Select the number of a disc installed in a CD player-changer.

After pressing CD (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the CD player-changer:

- 1-10, +10:** Selects a track number directly.  
For track number 5, press 5. For track number 15, press +10, then 5. For track number 20, press +10, then 10. For track number 30, press +10, +10, then 10.

**Turntable**

After pressing PHONO (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the turntable:

- PLAY:** Starts playing.
- STOP:** Stops playing.

**Cassette deck**

After pressing TAPE/MD or TAPE CONTROL (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the cassette deck:

- PLAY:** Starts playing.
- REW:** Fast winds the tape from right to left.
- FF:** Fast winds the tape from left to right.
- STOP:** Stops operations.
- PAUSE:** Pauses playing or recording temporarily. To release it, press the PLAY button.
- REC ●:** Press this button with the PLAY button to start recording. Press this button with the PAUSE button to enter recording pause.

**MD recorder**

After pressing TAPE/MD or TAPE CONTROL (with the remote control mode selector set to "AUDIO/TV/VCR" position), you can perform the following operations on the MD recorder:

- PLAY:** Starts playing.
- ◀◀:** Returns to the beginning of the current (or previous) track.
- ▶▶:** Skips to the beginning of the next track.
- STOP:** Stops playing.
- PAUSE:** Pauses playing. To release it, press the PLAY button.
- REC ●:** Press this button with the PLAY button to start recording. Press this button with the PAUSE button to enter recording pause.

**IMPORTANT:**

To operate JVC's video components using this remote control:

- Aim the remote control directly at the remote sensor on the VCR, DVD player or TV, not on the receiver.

**VCR1 (the VCR connected to the VCR1 jacks)**

You can always perform the following operations (with the remote control mode selector set to "AUDIO/TV/VCR");

**VCR1 ◀/▶:** Turns on or off the VCR1.

After pressing VCR1 or VCR1 CONTROL (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the VCR:

- PLAY:** Starts playing.
- REW:** Rewinds a tape.
- FF:** Fast winds a tape.
- STOP:** Stops operations.
- PAUSE:** Pauses playing or recording temporarily. To release it, press the PLAY button.
- REC ●:** Press this button with the PLAY button to start recording.

Press this button with the PAUSE button to enter recording pause.

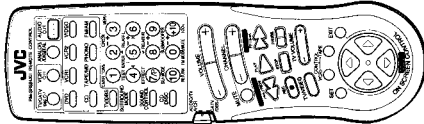
**CHANNEL +/-:** Changes the channels on the VCR.

**1-9, 0:** Selects the channels on the VCR.  
For channel 5, press 5.  
For channel 10, press 1, then 0.

**DVD player**

After pressing DVD (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on a DVD player:

- PLAY:** Starts playing.
- ◀◀:** Returns to the beginning of the current (or previous) track.
- ▶▶:** Skips to the beginning of the next track.
- STOP:** Stops playing.
- PAUSE:** Stops playing temporarily. To release it, press the PLAY button.



**Notes:**

- Some JVC VCRs can accept two types of the control signals - code "A" and "B." Before using this remote control, make sure that the remote control code of the VCR1 is set to code "A."
- You can use either the VCR1 button or the VCR1 CONTROL button to activate the buttons listed to the left. If you press VCR1, the playing source also changes. On the other hand, if you press VCR1 CONTROL, the playing source does not change.

After pressing DVD (with the remote control mode selector set to the "AUDIO/TV/VCR" position), these buttons can be used for the DVD menu operations.



**Note:**

For detailed menu operations, refer to the instructions supplied with the discs or the DVD player.

## Operating JVC's Audio/Video Components

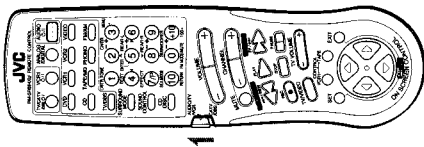
### TV

You can always perform the following operations (with the remote control mode selector set to "AUDIO/TV/VCR"):

- TV/CATV/DBS**  $\odot/\text{I}$ : Turns on or off the TV.
- TV VOLUME +/-**: Adjusts the volume.
- TV/VIDEO**: Sets the input mode (either TV or VIDEO).

After pressing TV/DBS (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on a TV:

- CHANNEL +/-**: Changes the channels.
- 1-9, 100+**: Selects the channels.
- RETURN**: Alternates between the previously selected channel and the current channel.



## Operating Other Manufacturers' Components

This remote control supplied with the receiver can transmit control signals for other manufacturers' VCRs, TVs, CATV converters and DBS tuners. By changing the transmittable signals from preset ones to the other manufacturers', you can operate the other manufacturer's components using this remote control.

When operating the other manufacturers' components, refer also to the manuals supplied with them.

To operate these components with the remote control, first you need to set the manufacturer's code each for the VCR, TV, CATV converter, and DBS tuner.

### IMPORTANT:

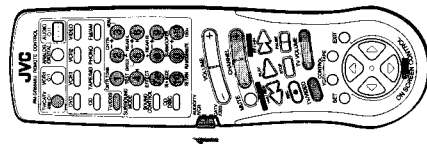
When using the Remote Control, check to see if its remote control mode selector is set to the correct position:

To operate an audio system, TV, and VCR, set it to "AUDIO/TV/VCR."

To operate a CATV converter and DBS tuner, set it to "CATV/DBS."



To change the transmittable signals for operating another manufacturer's TV



1. Set the remote control mode selector to "AUDIO/TV/VCR."

2. Press and hold TV/CATV/DBS  $\odot/\text{I}$ .

3. Press TV/DBS.

4. Enter the manufacturer's code (three digits) using buttons 1-9, and 0. See the lists on page 65 to find the code.

5. Release TV/CATV/DBS  $\odot/\text{I}$ .

The following buttons can be used for operating the TV (with the remote control mode selector set to "AUDIO/TV/VCR"):

**TV/CATV/DBS**  $\odot/\text{I}$ : Turns on and off TV.

**TV VOLUME +/-**: Adjusts the volume.

**TV/VIDEO**: Sets the input mode (either TV or VIDEO).

After pressing TV/DBS (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the TV:

**CHANNEL +/-**: Changes the channels.

**1-10, 0, 100+(+10)**: Selects the TV channels.

**100+(+10)** button will function as the ENTER button if your TV requires pressing ENTER after selecting a channel number.

6. Try to operate your TV by pressing TV/CATV/DBS  $\odot/\text{I}$ .

When your TV turns on or off, you have entered the correct code.

7. If there are more than one code listed for your brand of TV, try each one until the correct one is entered.

### Note:

Refer also to the manual supplied with your TV.

## Operating Other Manufactures' Components

### To change the transmittable signals for operating a CATV converter or DBS tuner

1. Set the remote control mode selector to "CATV/DBS."

2. Press and hold TV/CATV/DBS  $\odot$ /I.

3. Press TV/DBS.

4. Enter the manufacturer's code (three digits) using buttons 1-9, and 0. See the lists on page 65 to find the code.

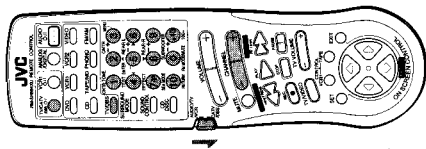
5. Release TV/CATV/DBS  $\odot$ /I. After setting the remote control mode selector to "CATV/DBS," you can perform the following operations on the CATV converter or on the DBS tuner:

- TV/CATV/DBS  $\odot$ /I: Turns on and off the CATV converter or DBS tuner.
- Changes the channels.
- CHANNEL +/-: Selects the channels. 100+ (+10) button will function as the ENTER button if your CATV converter or DBS tuner requires pressing ENTER after selecting a channel number.

6. Try to operate your CATV converter or DBS tuner by pressing TV/CATV/DBS  $\odot$ /I.

When your CATV converter or DBS tuner turns on or off, you have entered the correct code.

7. If there are more than one code listed for your brand of CATV converter or DBS tuner, try each one until the correct one is entered.



#### Note:

Refer also to the manual supplied with your CATV converter or DBS tuner.

### To change the transmittable signals for operating another manufacturer's VCR

1. Set the remote control mode selector to "AUDIO/TV/VCR."

2. Press and hold VCR1  $\odot$ /I.

3. Press VCR1.

4. Enter the manufacturer's code (three digits) using buttons 1-9, and 0. See the lists on page 65 to find the code.

5. Release VCR1  $\odot$ /I. The following buttons can be used for operating the VCR (with the remote control mode selector set to "AUDIO/TV/VCR"):

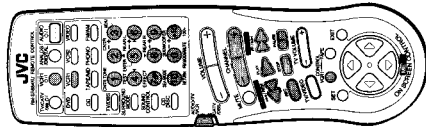
- VCR1  $\odot$ /I: Turns on and off VCR.
- After pressing VCR1 or VCR1 CONTROL (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the VCR:
- CHANNEL +/-: Changes the channels on the VCR.
- 1-10, 0, 100+ (+10): Selects the channels on the VCR. 100+ (+10) button will function as the ENTER button if your VCR requires pressing ENTER after selecting a channel number.

- PLAY: Starts playback.
- STOP: Stops operations.
- PAUSE: Pauses.
- REW: Rewinds a tape.
- FF: Fast winds a tape.
- REC  $\bullet$ : Starts recording or enters recording pause.

6. Try to operate your VCR by pressing VCR1  $\odot$ /I.

When your VCR turns on or off, you have entered the correct code.

7. If there are more than one code listed for your brand of VCR, try each one until the correct one is entered.



#### Notes:

- You can use either the VCR1 button or the VCR1 CONTROL button to activate the buttons listed to the left. If you press VCR1, the playing source also changes. On the other hand, if you press VCR1 CONTROL, the playing source does not change.
- Refer also to the manual supplied with your VCR.

## Manufacturers' codes for TV

|               |                                   |
|---------------|-----------------------------------|
| Anam          | 003, 004, 009, 068, 161, 425, 426 |
| Anam National | 161, 250, 425                     |
| Blaupunkt     | 554                               |
| Daewoo        | 066, 092, 154, 391, 402, 451      |
| ECE           | 037                               |
| Etron         | 009, 283                          |
| Fortress      | 093                               |
| Funai         | 264, 342                          |
| General       | 186                               |
| GoldStar      | 002, 037, 039, 178, 283, 457, 467 |
| Grundig       | 535                               |
| Hitachi       | 145                               |
| JVC           | 036, 053, 069, 094, 160           |
| Marantz       | 054                               |
| Matsushita    | 250                               |
| Mitsubishi    | 150, 241                          |
| National      | 226                               |
| NEC           | 030, 170                          |
| Nicamagic     | 216                               |
| Panasonic     | 161, 250                          |
| Philips       | 037                               |
| Pioneer       | 166                               |
| Samsung       | 060, 090, 427                     |
| Sanyo         | 208, 376, 424                     |
| Sharp         | 093, 256                          |
| Sony          | 000                               |
| Telefunken    | 252                               |
| Thomson       | 560                               |
| Toshiba       | 156, 502                          |
| Victor        | 038, 053, 160, 250, 376           |

## Manufacturers' codes for CATV converters

|          |          |
|----------|----------|
| DaenYung | 008      |
| GoldStar | 838      |
| LG Alps  | 779      |
| Now      | 776      |
| Samsung  | 702      |
| Seawoo   | 780      |
| Tongkook | 777, 840 |
| Zenith   | 000      |

## Manufacturers' codes for DBS tuner

|            |     |
|------------|-----|
| Dae Young  | 735 |
| DX Antenna | 752 |
| Marantz    | 200 |
| Panasonic  | 739 |
| Pantech    | 747 |
| Samsung    | 773 |
| Sony       | 661 |
| Toshiba    | 486 |

## Troubleshooting

Use this chart to help you solve daily operational problems. If there is any problem you cannot solve, contact your JVC service center.

| PROBLEM  | POSSIBLE CAUSE  | SOLUTION  |
|--|---|---|
| The display does not light up.                     | The power cord is not plugged in or the<br>⊖ POWER switch pressed to set it in the<br>■ OFF position. | Plug the power cord into an AC<br>outlet and/or press ⊖ POWER to<br>set it in the ■ ON position.  |
| No sound from speakers.                            | Speaker signal cables are not connected.  | Check speaker wiring and<br>reconnect if necessary.   |
|  | The SPEAKERS 1 and 2 buttons are not<br>set correctly.  | Press SPEAKERS 1 and 2 correctly.   |
|  | An incorrect source is selected.  | Select the correct source.  |
|  | Muting is activated.  | Press MUTE to cancel the mute.  |
| Sound from one speaker only.                       | Speaker signal cables are not connected<br>properly.  | Check speaker wiring and reconnect<br>if necessary.   |
|  | The balance is set to one extreme.  | Adjust the balance property (see<br>page 19).   |
| Continuous hiss or buzzing during FM<br>reception. | Incoming signal is too weak.  | Connect an outside FM antenna or<br>contact your dealer.  |
|  | The station is too far away.  | Select a new station.   |
|  | An incorrect antenna is used.   | Check with your dealer to be sure<br>you have the correct antenna.  |
|  | Antennas are not connected properly.  | Check connections.  |
| Occasional crackling noise during FM<br>reception. | Ignition noise from automobiles.  | Move the antenna further from<br>automobile traffic.  |
|  | The color system of the connected TV is<br>not PAL.   | Connect a PAL TV.   |
| Howling during record playing.                     | Your turntable is too close to speakers.  | Move speakers away from the<br>turntable.   |
| "OVERLOAD" starts flashing on the<br>display.      | Speakers are overloaded because of high<br>volume.  | Rotate the MASTER VOLUME<br>control counterclockwise three or<br>four times, then press STANDBY/<br>ON ⊖/⊕ on the front panel.<br>If "OVERLOAD" does not<br>disappear, unplug the AC power<br>cord, then plug it back again.                      |
|  | Speakers are overloaded because of short<br>circuit of speaker terminals.                             | Press STANDBY/ON ⊖/⊕ on the<br>front panel, then check the speaker<br>wiring.<br>If "OVERLOAD" does not<br>disappear, unplug the AC power<br>cord, then plug it back again.<br>If speaker wiring is not short-<br>circuited, contact your dealer. |
| Remote control does not work.                      | The remote control mode selector is not set<br>correctly.   | Set the selector correctly either to<br>"AUDIO/TV/CR" or to "CATV/<br>DBS."   |
|  | There is an obstruction in front of the<br>remote sensor on the receiver.                             | Remove the obstruction.   |
|  | Batteries are weak.   | Replace batteries.  |

## Manufacturers' codes for VCR

|               |                         |
|---------------|-------------------------|
| Akai          | 281, 288                |
| Anam          | 037, 162, 226, 240, 278 |
| Anam National | 162, 226                |
| Blaupunkt     | 226                     |
| Daewoo        | 020, 046, 278, 388, 552 |
| Funai         | 000                     |
| General       | 052                     |
| GoldStar      | 037, 225, 471           |
| Grundig       | 195                     |
| Hitachi       | 042, 166, 235           |
| JVC           | 008, 041, 067, 384      |
| Marantz       | 081                     |
| Matsushita    | 227                     |
| Mitsubishi    | 043, 061, 196           |
| National      | 226                     |
| NEC           | 038, 040, 370           |
| Panasonic     | 162, 226, 227, 367      |
| Philips       | 062, 081                |
| Pioneer       | 058                     |
| Samsung       | 240, 426, 432           |
| Sanyo         | 046, 104, 368, 369      |
| Sharp         | 048, 062, 363           |
| Shinrom       | 072                     |
| Sony          | 032, 033, 034           |
| Telefunken    | 187                     |
| Thomson       | 320                     |
| Toshiba       | 045, 366                |
| Victor        | 008, 041, 067, 384      |

Manufacturers' codes listed on this page are subject to change without notice. If they are changed, this remote control cannot operate the equipment.

Specifications

English

Amplifier

Output Power ..... At Stereo operation  
Front channels ..... 100 watts per channel, min. RMS,  
driven into 4 ohms at 1 kHz, with  
no more than 0.7 % total harmonic  
distortion. (IEC268-3/DIN)

At Surround operation  
Front channels ..... 50 watts per channel, min. RMS,  
driven into 8 ohms at 1 kHz, with  
no more than 0.7 % total harmonic  
distortion. (IEC268-3/DIN)

Center channel ..... 70 watts per channel, min. RMS,  
driven into 4 ohms at 1 kHz, with  
no more than 0.8 % total harmonic  
distortion.

Rear channels ..... 70 watts per channel, min. RMS,  
driven into 4 ohms at 1 kHz, with  
no more than 0.8 % total harmonic  
distortion.

Total Harmonic Distortion (8 ohms, 1 kHz) ..... 0.02 %\* at 50 watts output  
(\* Measured by JVC Audio  
Analysis System)

Audio Input Sensitivity/Impedance (1 kHz) ..... PHONO (MM) ..... 2.5 mV/47 k ohms  
CD, TAPE/MD, TV SOUND/DBS, VCR1, VCR2, VIDEO, DVD

Audio Input (DIGITAL IN) ..... Coaxial: DIGITAL 1 (DBS) ..... 0.5 Vp-p/75 ohms  
Optical: DIGITAL 2 (DVD), DIGITAL 3 (CD) ..... -21 dBm to -15 dBm (660 nm ±30  
nm)

Audio Output Level ..... TAPE/MD, VCR1, VCR2 ..... 200 mV

Signal-to-Noise Ratio (66 IHF/DIN) ..... PHONO ..... 70 dB/66 dB  
CD, TAPE/MD, TV SOUND/DBS, VCR1, VCR2, VIDEO, DVD ..... 87 dB/67 dB

Frequency Response (8 ohms) ..... PHONO ..... 20 Hz to 20 kHz (±1 dB)  
CD, TAPE/MD, TV SOUND/DBS, VCR1, VCR2, VIDEO, DVD ..... 20 Hz to 20 kHz (±1 dB)

RIAA Phono Equalization ..... ±0.5 dB (20 Hz to 20 kHz)

Loudness Control (Volume Control at -30 dB) ..... +6 ±1 dB at 100 Hz  
+4 ±1 dB at 10 kHz

S.E.A. ..... Center Frequencies ..... 100 Hz, 1 kHz, 10 kHz  
Control Range ..... ±10 dB ±2 dB

English

Video

Video Input Sensitivity/Impedance ..... Composite video: TV SOUND/DBS, VCR1, VCR2, VIDEO, DVD  
S-video: TV SOUND/DBS, VCR1, VIDEO, DVD ..... 1 Vp-p/75 ohms  
(Y: luminance) ..... 1 Vp-p/75 ohms  
(C: chrominance, burst) ..... 0.286 Vp-p/75 ohms

Video Output Level ..... Composite video: VCR1, VCR2, MONITOR OUT ..... 1 Vp-p/75 ohms  
S-video: VCR1, MONITOR OUT ..... 1 Vp-p/75 ohms  
(Y: luminance) ..... 1 Vp-p/75 ohms  
(C: chrominance, burst) ..... 0.286 Vp-p/75 ohms

Synchronization ..... Negative

Signal-to-Noise Ratio ..... 45 dB

On-Screen Color System ..... PAL

FM tuner (IHF)

Tuning Range ..... 87.5 MHz to 108.0 MHz

Usable Sensitivity ..... Monaural ..... 12.7 dBf (1.2 µV/75 ohms)  
50 dB Quieting Sensitivity ..... Monaural ..... 16.3 dBf (1.8 µV/75 ohms)  
Stereo ..... 38.3 dBf (22.5 µV/75 ohms)

Signal-to-Noise Ratio (IHF-A weighted) ..... Monaural ..... 80 dB at 85 dBf  
Stereo ..... 73 dB at 85 dBf

Total Harmonic Distortion ..... Monaural ..... 0.15 % at 1 kHz  
Stereo ..... 0.2 % at 1 kHz

Stereo Separation at REC OUT ..... 40 dB at 1 kHz

Capture Ratio ..... 1.5 dB at 85 dBf

Alternate Channel Selectivity ..... 60 dB; (±400 kHz)

Frequency Response ..... 30 Hz to 15 kHz; (+0.5 dB, -3 dB)

AM tuner

Tuning Range ..... 531 kHz to 1,602 kHz (at 9 kHz  
interval)  
530 kHz to 1,600 kHz (at 10 kHz  
interval)

Usable Sensitivity ..... Loop antenna ..... 300 µV/m

Signal-to-Noise Ratio ..... 50 dB (100 mV/m)

General

Power Requirements ..... AC 110/127/220/230-240V<sup>o</sup>,  
adjustable with the voltage selector,  
50/60 Hz

Power Consumption ..... 280 watts  
2 watts (in standby mode)

Dimensions (W x H x D) ..... 435 x 157 x 412.5 mm  
(17 1/16 x 6 1/16 x 16 1/2 inches)

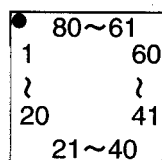
Mass ..... 11.3 kg (25.0 lbs)

Designs & specifications are subject to change without notice.

## Description of Major ICs

### ■ MN101C15FAF (IC401) : System Control Micon

#### 1. Terminal Layout

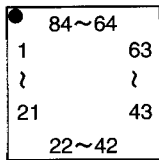


#### 2. Pin Function

| Pin No | Symbol        | Functions                            | Pin No | Symbol           | Functions                            |
|--------|---------------|--------------------------------------|--------|------------------|--------------------------------------|
| 1      | GND           | Ground                               | 41     | VIDEO3           | VIDEO 3 signal terminal              |
| 2      | DVD-S/C       | DVD S/C signal select terminal       | 42     | VIDEO4           | VIDEO 4 signal terminal              |
| 3      | VCR1-S/C      | VCR1 S/C signal select terminal      | 43     | S.MUTE           | Source mute control terminal         |
| 4      | VIDEO-S/C     | VIDEO S/C signal select terminal     | 44     | —————            | —————                                |
| 5      | TV-S/C        | TV S/C select terminal               | 45     | DSP-ACK          | DSP control signal terminal          |
| 6      | 4/8-IN        | 4 ohm / 8 ohm select signal terminal | 46     | DSP-INT          | DSP control signal terminal          |
| 7      | —————         | —————                                | 47     | RDS-STATUS       | RDS control signal terminal          |
| 8      | —————         | —————                                | 48     | RDS-COMMON       | RDS control signal terminal          |
| 9      | PROTECT       | Protect                              | 49     | INH-IN           | Inhibit signal input terminal        |
| 10     | GND           | Ground                               | 50     | DSP-CS           | DSP control signal terminal          |
| 11     | VDD           | Power supply                         | 51     | DSP-RESET        | DSP reset signal terminal            |
| 12     | OSC2          | Oscillation terminal                 | 52     | M/CS             | Control signal from IC400            |
| 13     | OSC1          | Oscillation terminal                 | 53     | M-RESET          | Reset signal from IC400              |
| 14     | Vss           | Ground                               | 54     | STATUS           | Status signal from IC400             |
| 15     | XI            | Ground                               | 55     | COMMAND          | Command signal from IC400            |
| 16     | XO            | Ground                               | 56     | MCLK             | Clock signal from IC400              |
| 17     | GND           | Ground                               | 57     | SEA-CLK          | SEA clock signal from terminal       |
| 18     | —————         | Text signal input terminal           | 58     | SEA-DATA         | SEA data signal terminal             |
| 19     | —————         | Text signal output terminal          | 59     | VL/VH            | Connect to power supply board        |
| 20     | —————         | Master signal terminal               | 60     | 4/8 OUT          | 4 ohm / 8 ohm select signal terminal |
| 21     | DSP-COMMAND   | DSP control signal terminal          | 61     | SW-DADTA         | Switch data signal terminal          |
| 22     | DSP-STATUS    | DSP control signal terminal          | 62     | SW-CLK           | Switch clock signal terminal         |
| 23     | DSP-CK        | DSP control signal terminal          | 63     | VOL-STB          | Volume strobo signal terminal        |
| 24     | GND           | Ground                               | 64     | VOL-DATA         | Volume data signal terminal          |
| 25     | RESET-IN      | Reset signal input terminal          | 65     | VOL-CLK          | Volume clock signal terminal         |
| 26     | TUNER-CE      | Tuner chip enable                    | 66     | SW-STB           | Switch strobo signal terminal        |
| 27     | TUNER-CLK     | Tuner clock signal terminal          | 67     | OTO-LED          | OTO LED signal terminal              |
| 28     | TUNER-STATUS  | Tuner control signal terminal        | 68     | —————            | Dolby LED (Digital)                  |
| 29     | TUNER-COMMAND | Tuner control signal terminal        | 69     | FR-RELAY1        | Relay 1 signal terminal              |
| 30     | TUNER-MUTE    | Tuner mute signal terminal           | 70     | FR-RELAY2        | Relay 2 signal terminal              |
| 31     | TUNER-IN      | Tuner signal input terminal          | 71     | CNTR-RELAY       | Center speaker relay terminal        |
| 32     | STEREO-IN     | Stereo signal input terminal         | 72     | SUR-RELAY        | Surround speaker relay terminal      |
| 33     | RDS-ST        | No use                               | 73     | HP-RELAY         | Head Phone relay terminal            |
| 34     | M-BUSY        | Busy signal from IC400               | 74     | DOLBY (PROLOGIC) | Dolby signal terminal                |
| 35     | RDS-CLK       | No use                               | 75     | C.TONE3          | Center tone 3 signal terminal        |
| 36     | OSD-DATA      | OSD data signal input terminal       | 76     | C.TONE2          | Center tone 2 signal terminal        |
| 37     | OSD-STB       | OSD standby signal terminal          | 77     | C.TONE1          | Center tone 1 signal terminal        |
| 38     | OSD-CLK       | OSD clock signal terminal            | 78     | LED-LCK          | LED latch clock signal terminal      |
| 39     | VIDEO1        | VIDEO 1 signal terminal              | 79     | LED-DATA         | LED data signal terminal             |
| 40     | VIDEO2        | VIDEO 2 signal terminal              | 80     | LED-CLK          | LED clock signal terminal            |

■ MN172412JABZ (IC400) : FL Tube Drive Control Micon

1. Terminal Layout



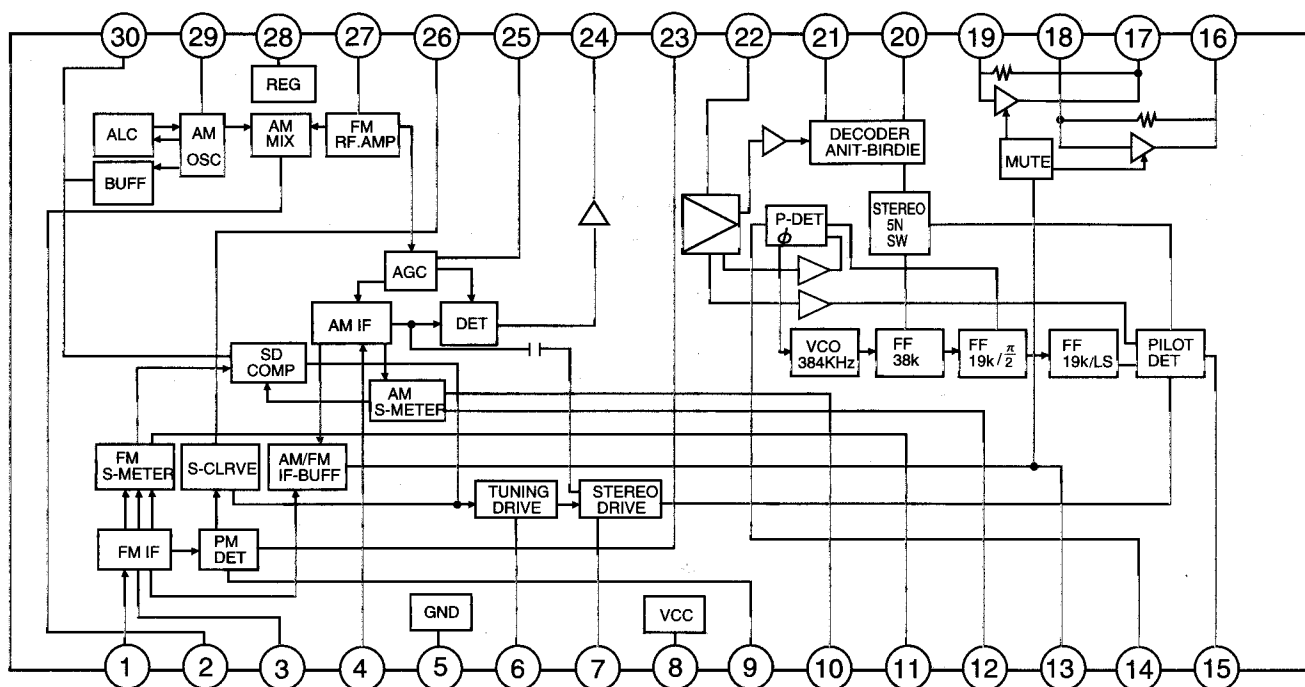
2. Pin Function

| Pin No. | Symbol | Functions                    | Pin No. | Symbol  | Functions                    |
|---------|--------|------------------------------|---------|---------|------------------------------|
| 1       | S22    | Segment controlsignal output | 43      | JOG4    | Connect to volume            |
| 2       | S21    | Segment controlsignal output | 44      | MBUSY   | Busy signal to IC401         |
| 3       | S20    | Segment controlsignal output | 45      | MCLK    | Clock signal to IC401        |
| 4       | S19    | Segment controlsignal output | 46      | COMMAND | Command signal to IC401      |
| 5       | S18    | Segment controlsignal output | 47      | STATUS  | Status signal fot IC 401     |
| 6       | S17    | Segment controlsignal output | 48      | M/CS    | Control signal to IC401      |
| 7       | S16    | Segment controlsignal output | 49      | RM      | Remocon signal terminal      |
| 8       | S15    | Segment controlsignal output | 50      | VCRI    | Compulink signal input       |
| 9       | S14    | Segment controlsignal output | 51      | DCSI    | Compulink signal input       |
| 10      | S13    | Segment controlsignal output | 52      | DCSO    | Compulink signal output      |
| 11      | S12    | Segment controlsignal output | 53      | VCRO    | Compulink signal output      |
| 12      | S11    | Segment controlsignal output | 54      | TVO     | Compulink output             |
| 13      | S10    | Segment controlsignal output | 55      | TVC     | Compulink control output     |
| 14      | S9     | Segment controlsignal output | 56      | JOG5    | Connect to multti jog        |
| 15      | S8     | Segment controlsignal output | 57      | JOG6    | Connect to multti jog        |
| 16      | S7     | Segment controlsignal output | 58      | POWER   | From power supply            |
| 17      | S6     | Segment controlsignal output | 59      | STANDBY | Standby signal terminal      |
| 18      | S5     | Segment controlsignal output | 60      | KI3     | Key matrix input             |
| 19      | S4     | Segment controlsignal output | 61      | KI2     | Key matrix input             |
| 20      | S3     | Segment controlsignal output | 62      | KI1     | Key matrix input             |
| 21      | S2     | Segment controlsignal output | 63      | KI0     | Key matrix input             |
| 22      | S1     | Segment controlsignal output | 64      | S36     | Segment controlsignal output |
| 23      | VPP    | Powe supply fot FL display   | 65      | S35     | Segment controlsignal output |
| 24      | G14    | Grid controlsignal output    | 66      | S34     | Segment controlsignal output |
| 25      | G13    | Grid controlsignal output    | 67      | S33     | Segment controlsignal output |
| 26      | G12    | Grid controlsignal output    | 68      | RST     | Reset signal input           |
| 27      | G11    | Grid controlsignal output    | 69      | X1      | Connect to ground            |
| 28      | G10    | Grid controlsignal output    | 70      | X2      | No use                       |
| 29      | G9     | Grid controlsignal output    | 71      | VSS     | Connect to ground            |
| 30      | G8     | Grid controlsignal output    | 72      | OSC2    | Oscillation terminal         |
| 31      | G7     | Grid controlsignal output    | 73      | OSC1    | Osillation terminal          |
| 32      | G6     | Grid controlsignal output    | 74      | VDD     | Power supply                 |
| 33      | G5     | Grid controlsignal output    | 75      | S32     | Segment controlsignal output |
| 34      | G4     | Grid controlsignal output    | 76      | S31     | Segment controlsignal output |
| 35      | G3     | Grid controlsignal output    | 77      | S30     | Segment controlsignal output |
| 36      | G2     | Grid controlsignal output    | 78      | S29     | Segment controlsignal output |
| 37      | ————   | Connect to Q408              | 79      | S28     | Segment controlsignal output |
| 38      | ————   | Connect to Q407              | 80      | S27     | Segment controlsignal output |
| 39      | G1     | Grid controlsignal output    | 81      | S26     | Segment controlsignal output |
| 40      | JOG1   | Connect to source selector   | 82      | S25     | Segment controlsignal output |
| 41      | JOG2   | Connect to source selector   | 83      | S24     | Segment controlsignal output |
| 42      | JOG3   | Connect to volume            | 84      | S23     | Segment controlsignal output |



■ LA1837(IC102): FM AM IF AMP&detector, FM MPX Decoder

1. Block Diagram



3. Pin Function

| Pin No. | Symbol  | I/O | Function  | Pin No. | Symbol     | I/O | Function   |
|---------|---------|-----|---|---------|------------|-----|--|
| 1       | FM IN   | I   | This is an input terminal of FM IF signal.  | 16      | L OUT      | O   | Left channel signal output.  |
| 2       | AM MIX  | O   | This is an out put terminal for AM mixer.   | 17      | R OUT      | O   | Right channel signal output.   |
| 3       | FM IF   | I   | Bypass of FM IF   | 18      | L IN       | I   | Input terminal of the Left channel post AMP.   |
| 4       | AM IF   | I   | Input of AM IF Signal.  | 19      | R IN       | I   | Input terminal of the Right channel post AMP.  |
| 5       | GND     | -   | This is the device ground terminal.   | 20      | RO         | O   | Mpx Right channel signal output.   |
| 6       | TUNED   | O   | When the set is tuning,this terminal becomes "L".   | 21      | LO         | O   | Mpx Left channel signal output.  |
| 7       | STEREO  | O   | Stereo indicator output. Stereo "L", Mono: "H"  | 22      | IF IN      | I   | Mpx input terminal   |
| 8       | VCC     | -   | This is the power supply terminal.  | 23      | FM OUT     | O   | FM detection output.   |
| 9       | FM DET  | -   | FM detect transformer.  | 24      | AM DET     | O   | AM detection output.   |
| 10      | AM SD   | -   | This is a terminal of AM ceramic filter.  | 25      | AM AGC     | I   | This is an AGC voltage input terminal for AM   |
| 11      | FM VSM  | O   | Adjust FM SD sensitivity.   | 26      | AFC        | -   | This is an output terminal of voltage for FM-AFC.  |
| 12      | AM VSM  | O   | Adjust AM SD sensitivity.   | 27      | AM RF      | I   | AM RF signal input.  |
| 13      | MUTE    | I/O | When the signal of IF REQ of IC121( LC72131) appear, the signal of FM/AM IF output. //Muting control input. | 28      | REG        | O   | Register value between pin 26 and pin28 desides the frequency width of the input signal. |
| 14      | FM/AM   | I   | Change over the FM/AM input. "H" :FM, "L" : AM  | 29      | AM OSC     | -   | This is a terminal of AM Local oscillation circuit.                                      |
| 15      | MONO/ST | O   | Stereo : "H", Mono: "L"   | 30      | OSC BUFFER | O   | AM Local oscillation Signal output.  |

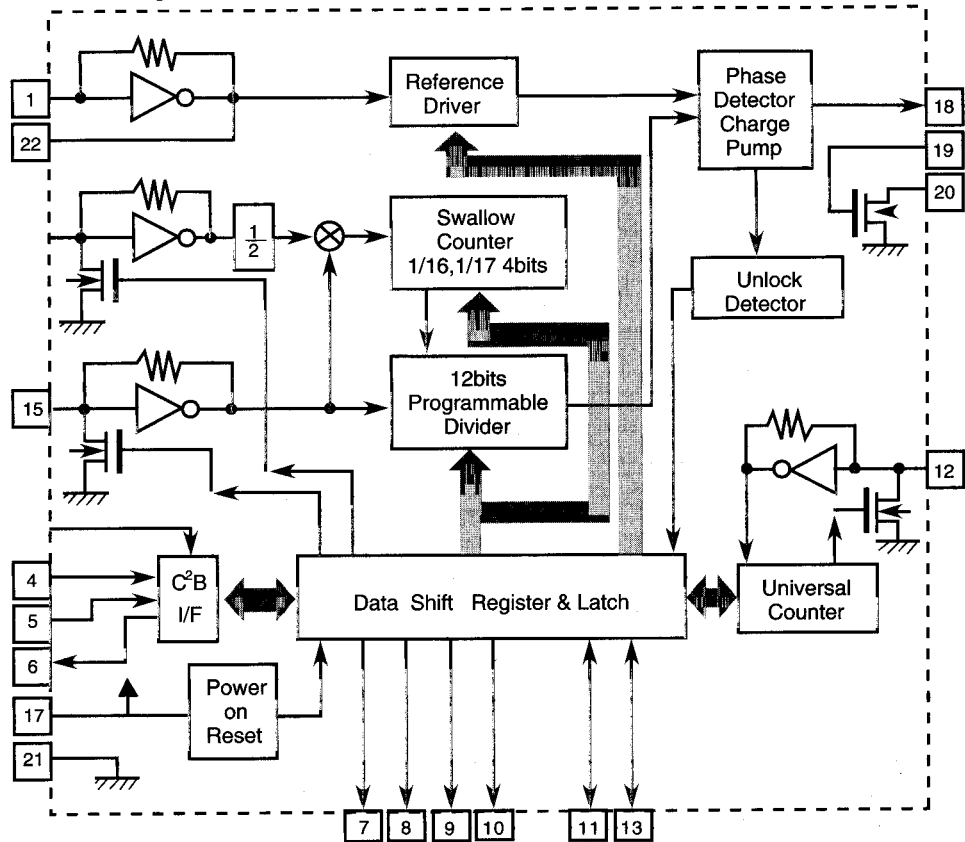
# RX-884P/RX-884V

## LC72131(IC121):PLL Synthesizer

### 1. Terminal Layout

|           |    |    |          |
|-----------|----|----|----------|
| XIN       | 1  | 22 | XOUT     |
| PLLCE     | 3  | 21 | VSS      |
| PLLDATA   | 4  | 20 | LPF OUT  |
| PLLCK     | 5  | 19 | LPF IN   |
| IFDATA    | 6  | 17 | VDD      |
| FM        | 7  | 16 | FM OSC   |
| MW        | 8  | 15 | AM OSC   |
| LW        | 9  | 14 |          |
| AUTO/MONO | 10 | 13 | IF REQ   |
| POWER     | 11 | 12 | FM/AM IF |

### 2. Block Diagram

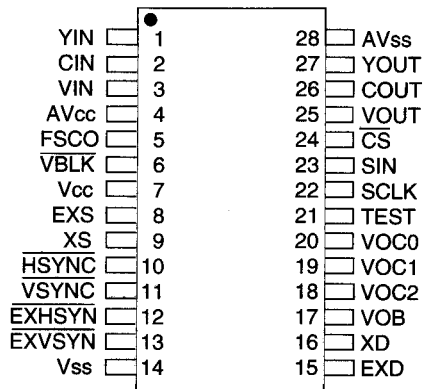


### 3. Pin Functions

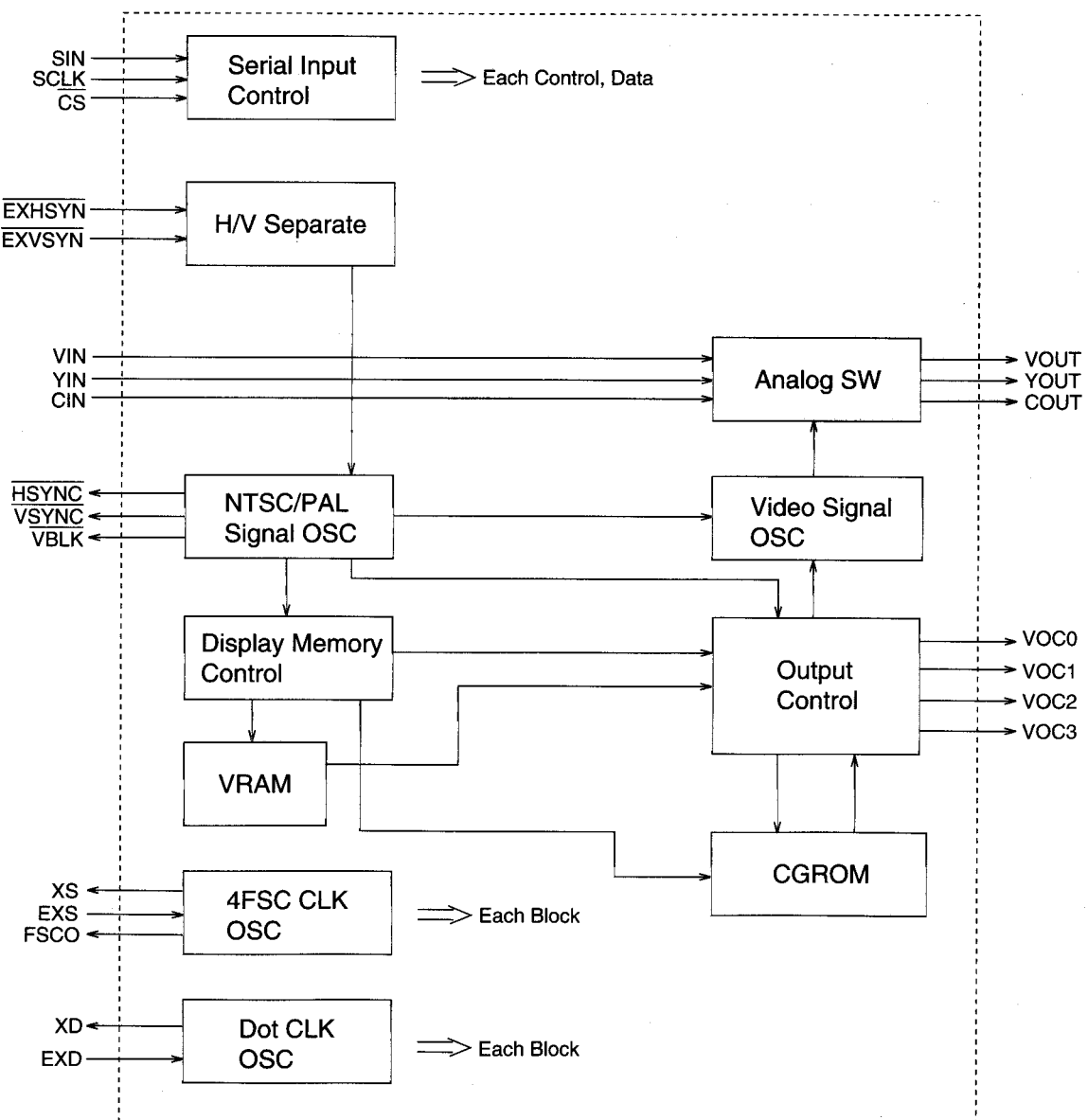
| Pin No. | Symbol    | I/O | Functions  | Pin No. | Symbol   | I/O | Functions   |
|---------|-----------|-----|--|---------|----------|-----|---|
| 1       | Xin       | I   | Crystal oscillator (7.2MHz).   | 12      | FM/AM IF | I   | Universal counter input   |
| 2       |           | --  | Not use  | 13      | IF REQ   | O   | Output the "IF-signal request" to IC102   |
| 3       | PLLCE     | I   | Fix the chip enable to "H" when inputting (DI) and outputting (DO) the serial data | 14      |          | I   | Not use   |
| 4       | PLLDATA   | I   | Receive the control data from the controller (IC801).                              | 15      | AMOSC    | I   | Input the local oscillator signal of AM.  |
| 5       | PLLCK     | I   | This clock is used to synchronize data when transmitting the data of DI and DO.    | 16      | FM OSC   | I   | Input the local oscillator signal of FM.  |
| 6       | IFDATA    | O   | Transmit the data from LC72131 to the controller which is synchronized with CK.    | 17      | VDD      | O   | This is a terminal of power supply.   |
| 7       | FM        | O   | It is "L" on FM mode.  | 18      | PD       | O   | PLL charge pump output : When the local oscillator signal frequency is higher than the reference frequency high level signals will output. When it is lower than the reference frequency, low level signals will output. When it is same as reference frequency signals, it will be floating. |
| 8       | MW        | O   | It is "L" on MW mode.  | 19      | LPF IN   | I   | Transistor used for the PLL active low-pass filter  |
| 9       | LW        | O   | It is "L" on LW mode.  | 20      | LPF OUT  | O   | Transistor used for the PLL active low-pass filter  |
| 10      | AUTO/MONO | O   | It is "L" on monaural, "L" on auto   | 21      | VSS      | --  | Connected to GND  |
| 11      | POWER     | O   | Regulator control signal P ON "H", STANDBY "L"                                     | 22      | X out    | O   | Crystal oscillator(7.2MHz).   |

■ MB90089 (IC203) : ON Screen Display Controller

1. Terminal Layout



2. Block Diagram



## 3.Functions

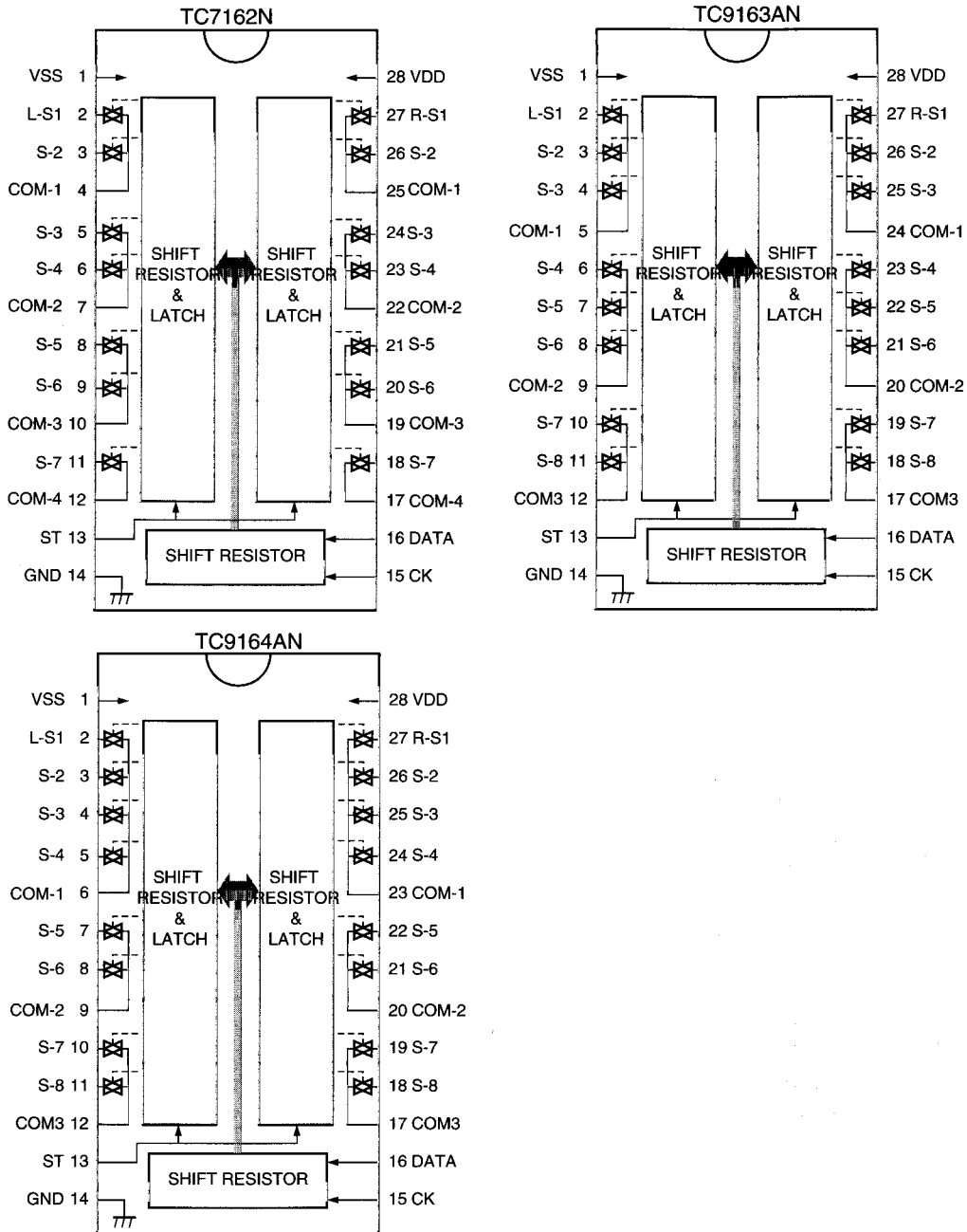
| pin no | Symbol | I/O | Function   |
|--------|--------|-----|--|
| 1      | YIN    | I   | Lux signal Input terminal for Superinpause indocation              |
| 2      | CIN    | I   | Contrast signal input terminal for Superinpause indication         |
| 3      | VIN    | I   | Composit video signal input terminal for Superinpause indication   |
| 4      | AVcc   | -   | Analog power supply terminal                                       |
| 5      | FSCO   | O   | Internal collar barst phase indication signal                      |
| 6      | VBLK   | O   | Vertical blanking signal output terminal                           |
| 7      | Vcc    | -   | Power supply terminal  |
| 8      | EXS    | I   | Clock generater outside circuit terminal for collar barst          |
| 9      | XS     | O   |  |
| 10     | HSYNC  | O   | Horizontal signal output terminal                                  |
| 11     | VSYN   | O   | Vertical signal output terminal                                    |
| 12     | EXHSYN | I   | EXT horizontal signal input terminal                               |
| 13     | EXVSYN | I   | EXT vertical signal input terminal                                 |
| 14     | Vss    | -   | GND  |
| 15     | EXD    | I   | Dot clock generater outside circuit signal terminal for indication |
| 16     | XD     | O   |  |
| 17     | VOB    | O   | Character & background signal output terminal                      |
| 18     | VOC2   | O   | Collar signal output terminal                                      |
| 19     | VOC1   |     |  |
| 20     | VOC0   |     |  |
| 21     | TEST   | I   | Test signal input terminal   |
| 22     | SCLK   | I   | Shift clock input terminal for serial transmission                 |
| 23     | SIN    | I   | Serial data input terminal   |
| 24     | CS     | I   | Tip select terminal  |
| 25     | VOUT   | O   | Composit video signal output terminal                              |
| 26     | COUT   | O   | Contrast signal output terminal                                    |
| 27     | YOUT   | O   | Lux signal output terminal   |
| 28     | AVss   | -   | Anarog GND terminal  |

■ TC9162AN,TC9163AN, TC9164AN (IC321): Analog Switch

1.Function

Switch to On/Off of S1 to S8 by control of LSI.

2.Terminal Lay out & Block Diagram



3.Corespondance of Switch & Data

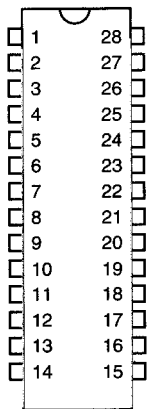
S1~S8 are "1" position to ON by bit1~8 of Serial Data.

S9 is Right,S10 is Left Switch to ON/OFF. TC9162,TC9163 and TC9164 are select by bit11~14.

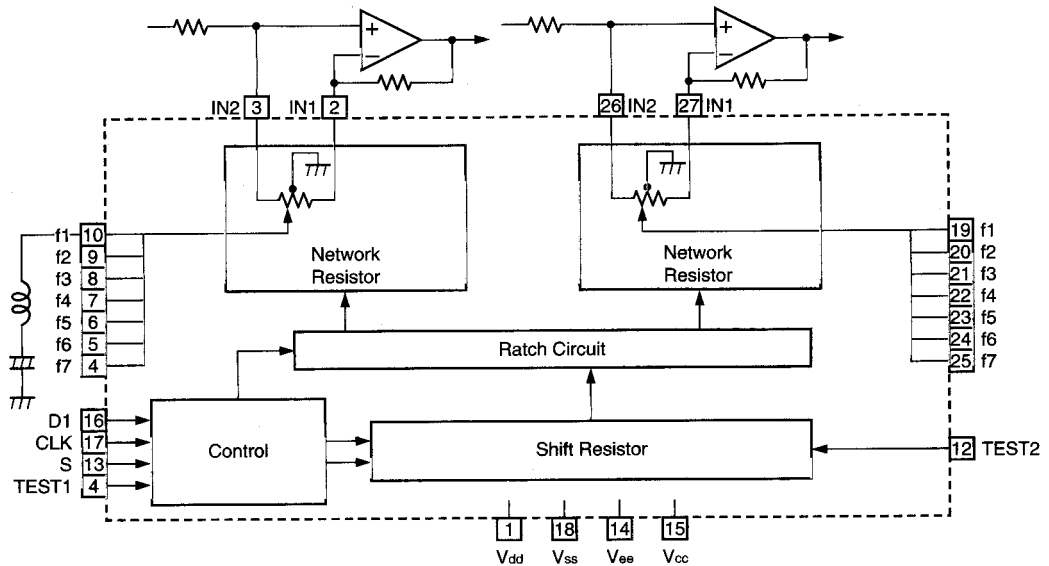
|         | Switch Select bit                                      |    |    |    |    |    |    |    | Right Left |     | Switch Select bit |     |     |     |  |
|---------|--|----|----|----|----|----|----|----|------------|-----|-------------------|-----|-----|-----|--|
|         | S1   | S2 | S3 | S4 | S5 | S6 | S7 | S8 | S9         | S10 | S11               | S12 | S13 | S14 |  |
| TC9162N | S1~S8 are "0" position to ON by bit1~8 of Serial Data. |    |    |    |    |    |    |    | 0          | 0   | 0                 | 0   |     |     |  |
| TC9163N | S1~S8 are "1" position to ON by bit1~8 of Serial Data. |    |    |    |    |    |    |    | 1          | 0   | 0                 | 0   |     |     |  |
| TC9164N | S1~S8 are "1" position to ON by bit1~8 of Serial Data. |    |    |    |    |    |    |    | 0          | 1   | 0                 | 0   |     |     |  |

■ LC7522(IC451) : SEA Control

1. Terminal



2. Block Diagram

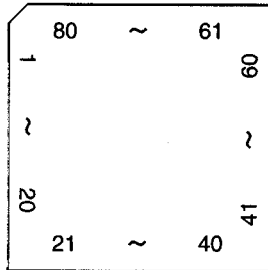


3. Function

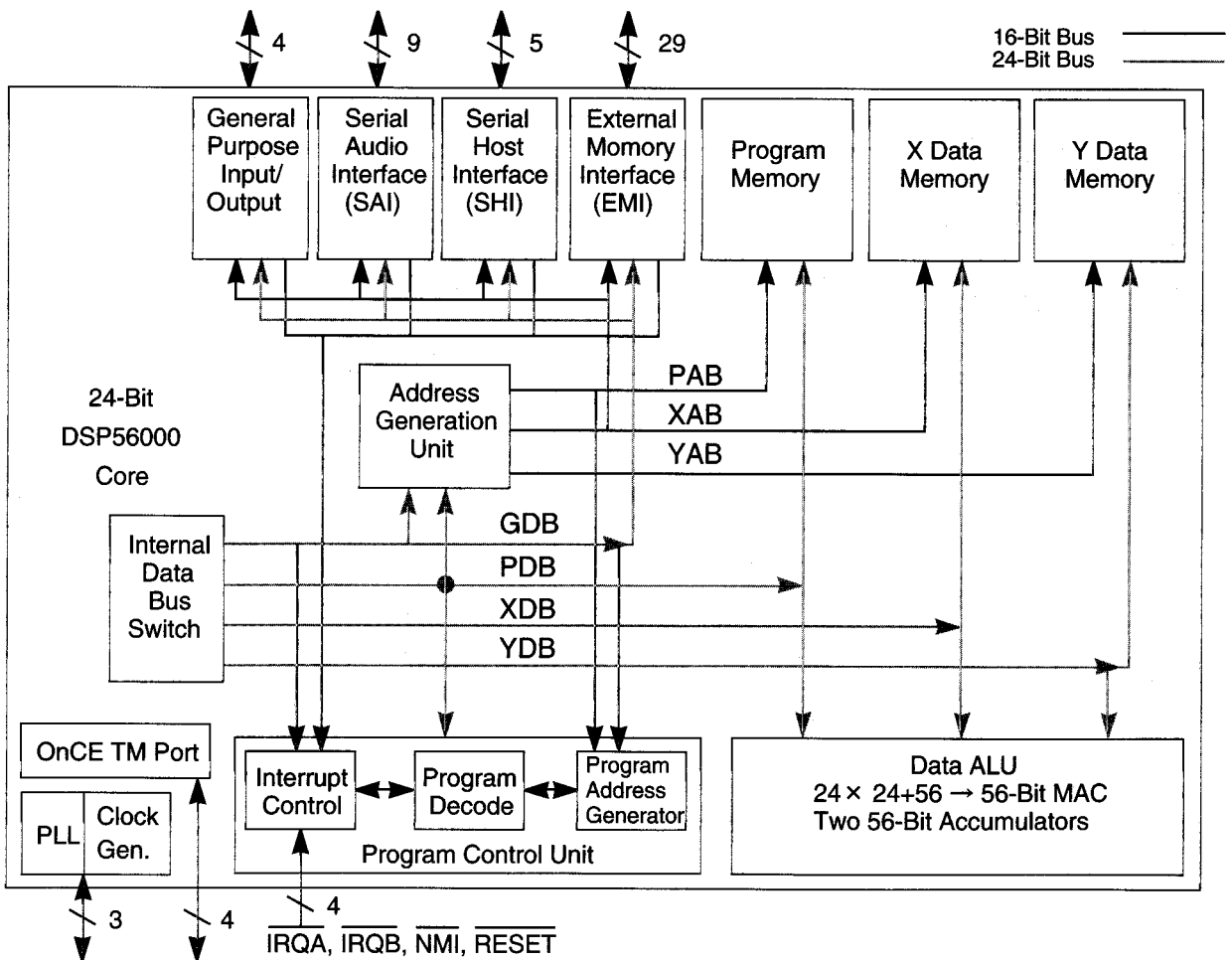
| Pin No.       | Symbol          | Function  |
|---------------|-----------------|---|
| 1             | V <sub>DD</sub> | Power Supply terminal for Audio signal +7V(typ)   |
| 18            | V <sub>SS</sub> | Power Supply terminal 0V  |
| 14            | V <sub>EE</sub> | Power Supply terminal for Audio signal. Single channel use, joint VSS.  |
| 15            | V <sub>CC</sub> | Power Supply terminal +5V(typ)  |
| 2,27          | IN 1            | Audio signal Input terminal   |
| 3,26          | IN 2            | IN1 joint oposit input of Operation amp.<br>IN2 joint unoposit input of Operation amp.<br>It have Right and Left. |
| 16            | D1              | Data input terminal from CPU<br>Shumit inverter style   |
| 17            | CLK             | Clock input terminal from CPU<br>Shumit inverter style  |
| 4~10<br>19~25 | f1~f7           | Joint terminal of B.P.F.<br>f1~f7 × Right, Left Total 14 terminal   |
| 11            | TEST1           | Internal test terminal of IC  |
| 12            | TEST2           | It can use open condition   |
| 13            | S               | Select terminal for 2 tip use<br>"1" input, key code 7C3→VDD joint<br>"0" input, key code 7C2→VEE joint           |
| 28            | NC              | No use  |

■ XCF56009FJ88 (IC631) : DSP Signal Processor

1. Terminal Lay out



2. Block Diagram



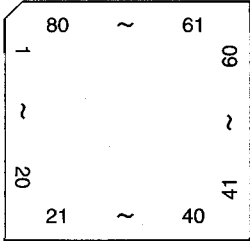
## 3.Pin function

| Pin No | Symbol | I/O | Function                 | Pin No | Symbol | I/O | Function                  |
|--------|--------|-----|--------------------------|--------|--------|-----|---------------------------|
| 1      | GND A  | --- | Ground                   | 41     | MOSI   | I/O | SPI Master-Out-Slave-In   |
| 2      | MCS0   | O   | No use                   | 42     | SS     | I   | SPI Slave Select          |
| 3      | MCS3   | O   | No use                   | 43     | HRQE   | I/O | Host Request              |
| 4      | MA14   | O   | No use                   | 44     | GNDS   | --- | Ground                    |
| 5      | MA13   | --- | No use                   | 45     | SDO2   | O   | No use                    |
| 6      | VCCA   | O   | Address Bus Power        | 46     | SDO1   | O   | Serial Data Output        |
| 7      | MA12   | --- | No use                   | 47     | SDO0   | O   | Serial Data Output        |
| 8      | GND A  | --- | Ground                   | 48     | VCCS   | --- | Serial Interface Power    |
| 9      | VCCQ   | --- | Quiet Power              | 49     | SCKT   | I/O | Serial Clock Transmit     |
| 10     | GNDQ   | O   | Ground                   | 50     | WST    | I/O | Word Select Transmit      |
| 11     | MA11   | O   | No use                   | 51     | SCKR   | I/O | Receive Serial Clock      |
| 12     | MA10   | O   | No use                   | 52     | GNDQ   | --- | Ground                    |
| 13     | MA9    | O   | No use                   | 53     | VCCQ   | --- | Quiet Power               |
| 14     | MA8    | --- | No use                   | 54     | GNDS   | --- | Ground                    |
| 15     | GND A  | O   | Ground                   | 55     | WSR    | I/O | Word Select Receive       |
| 16     | MA7    | --- | No use                   | 56     | SDI1   | I   | Serial Data Input         |
| 17     | VCCA   | O   | Address Bus Power        | 57     | SDI0   | I   | Serial Data Input         |
| 18     | MA6    | O   | No use                   | 58     | DSO    | O   | No use                    |
| 19     | MA5    | O   | No use                   | 59     | DSI    | I   | No use                    |
| 20     | MA4    | --- | No use                   | 60     | DSCK   | I   | No use                    |
| 21     | GND A  | O   | Ground                   | 61     | DR     | I   | Debug Request             |
| 22     | MA3    | O   | No use                   | 62     | MD7    | I/O | No use                    |
| 23     | MA2    | O   | No use                   | 63     | MD6    | I/O | No use                    |
| 24     | MA1    | O   | No use                   | 64     | MD5    | I/O | No use                    |
| 25     | MA0    | I   | No use                   | 65     | MD4    | I/O | No use                    |
| 26     | SCK    | I   | SPI Serial Clock         | 66     | GNDD   | --- | Ground                    |
| 27     | EXTAL  | --- | External Clock/Crystal   | 67     | MD3    | I/O | No use                    |
| 28     | VCCQ   | --- | Quiet Power              | 68     | MD2    | I/O | No use                    |
| 29     | GNDQ   | I   | Ground                   | 69     | MD1    | I/O | No use                    |
| 30     | PINIT  | --- | Ground                   | 70     | VCCD   | --- | Data Bus Power            |
| 31     | GNDP   | I   | Ground                   | 71     | MD0    | I/O | No use                    |
| 32     | PCAP   | --- | PLL Filter Capacitor     | 72     | GNDD   | --- | Ground                    |
| 33     | VCCP   | --- | PLLn Power               | 73     | GPIO3  | I/O | No use                    |
| 34     | GNDS   | I/O | Ground                   | 74     | GPIO2  | I/O | No use                    |
| 35     | MISO   | I   | SPI Master-In-Slave -Out | 75     | GPIO1  | I/O | No use                    |
| 36     | RESET  | I   | Reset                    | 76     | GPIO0  | I/O | Control Signal with IC641 |
| 37     | MODA   | I   | Mode Select              | 77     | MRDO   | O   | No use                    |
| 38     | MODB   | I   | Ground                   | 78     | MWR    | O   | No use                    |
| 39     | MODC   | I   | Mode Select              | 79     | MCS1   | O   | No use                    |
| 40     | VCCS   | --- | Serial Interface Power   | 80     | MCS2   | O   | No use                    |

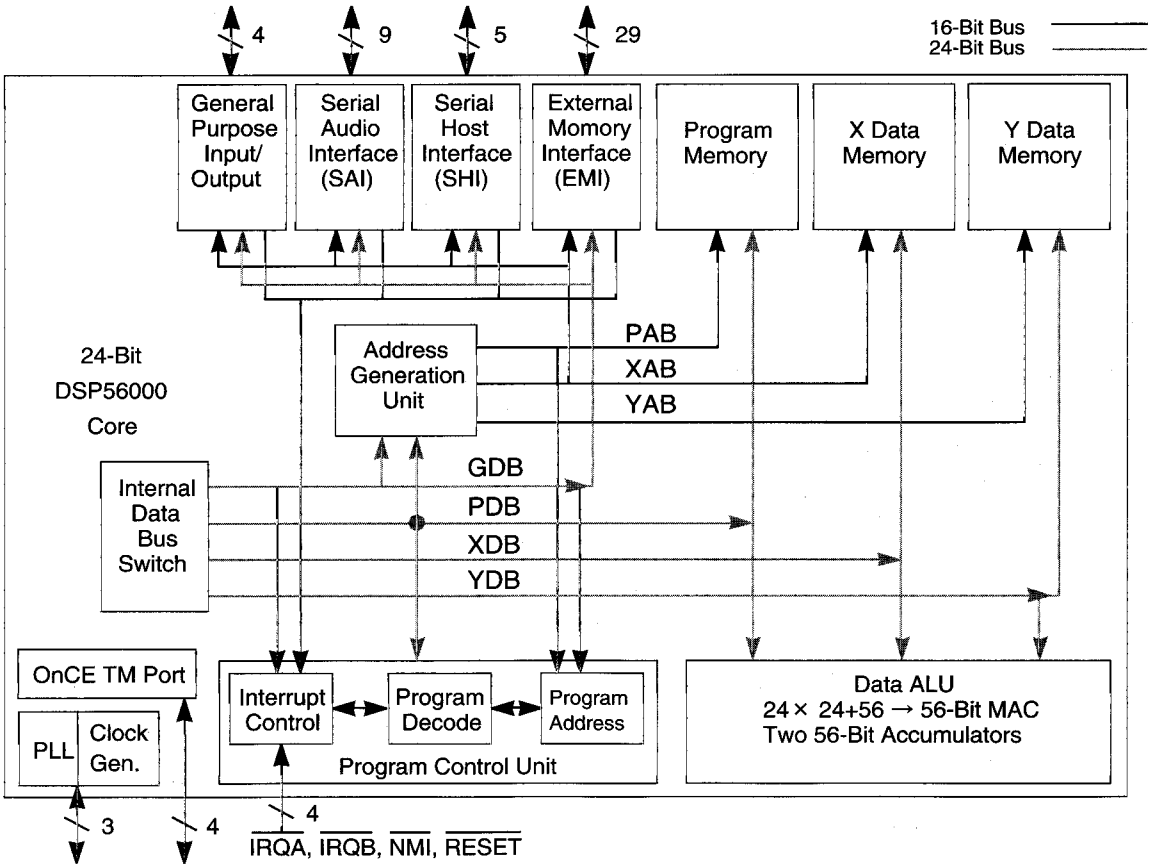


■ XCB56007FJ88 (IC641) : DSP Signal Processor

1. Terminal Layout



2. Block Diagram

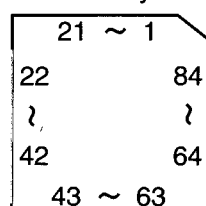


## 3. Functions

| Pin No | Symbol                   | I/O | Function                  | Pin No | Symbol                   | I/O | Function                  |
|--------|--------------------------|-----|---------------------------|--------|--------------------------|-----|---------------------------|
| 1      | GND A                    | --- | Ground                    | 41     | MOSI                     | I/O | SPI Master-Out-Slave-In   |
| 2      | $\overline{\text{MCS0}}$ | O   | Memory Chip Select        | 42     | SS                       | I   | SPI Slave Select          |
| 3      | $\overline{\text{MCS3}}$ | O   | No use                    | 43     | HRQE                     | I/O | Host Request              |
| 4      | MA14                     | O   | Memory Address            | 44     | GNDS                     | --- | Ground                    |
| 5      | MA13                     | O   | Memory Address            | 45     | SDO2                     | O   | Serial Data Output        |
| 6      | VCCA                     | --- | Address Bus Power         | 46     | SDO1                     | O   | Serial Data Output        |
| 7      | MA12                     | O   | Memory Address            | 47     | SDO0                     | O   | Serial Data Output        |
| 8      | GND A                    | --- | Ground                    | 48     | VCCS                     | --- | Serial Interface Power    |
| 9      | VCCQ                     | --- | Quiet Power               | 49     | SCKT                     | I/O | Serial Clock Transmit     |
| 10     | GNDQ                     | --- | Ground                    | 50     | WST                      | I/O | Word Select Transmit      |
| 11     | MA11                     | O   | Memory Address            | 51     | SCKR                     | I/O | Receive Serial Clock      |
| 12     | MA10                     | O   | Memory Address            | 52     | GNDD                     | --- | Ground                    |
| 13     | MA9                      | O   | Memory Address            | 53     | VCCQ                     | --- | Quiet Power               |
| 14     | MA8                      | O   | Memory Address            | 54     | GNDS                     | --- | Ground                    |
| 15     | GND A                    | --- | Ground                    | 55     | WSR                      | I/O | Word Select Receive       |
| 16     | MA7                      | O   | Memory Address            | 56     | SDI1                     | I   | Serial Data Input         |
| 17     | VCCA                     | --- | Address Bus Power         | 57     | SDI0                     | I   | Serial Data Input         |
| 18     | MA6                      | O   | Memory Address            | 58     | DSO                      | O   | No use                    |
| 19     | MA5                      | O   | Memory Address            | 59     | DSI                      | I/O | No use                    |
| 20     | MA4                      | O   | Memory Address            | 60     | DSCK                     | I/O | No use                    |
| 21     | GND A                    | --- | Ground                    | 61     | DR                       | I   | Debug Request             |
| 22     | MA3                      | O   | Memory Address            | 62     | MD7                      | I/O | Data Bus                  |
| 23     | MA2                      | O   | Memory Address            | 63     | MD6                      | I/O | Data Bus                  |
| 24     | MA1                      | O   | Memory Address            | 64     | MD5                      | I/O | Data Bus                  |
| 25     | MA0                      | O   | Memory Address            | 65     | MD4                      | I/O | Data Bus                  |
| 26     | SCK                      | I/O | SPI Serial Clock          | 66     | GND0                     | --- | Ground                    |
| 27     | EXTAL                    | I   | External Clock/Crystal    | 67     | MD3                      | I/O | Data Bus                  |
| 28     | VCCQ                     | --- | Address Bus Power         | 68     | MD2                      | I/O | Data Bus                  |
| 29     | GNDQ                     | --- | Ground                    | 69     | MD1                      | I/O | Data Bus                  |
| 30     | PINIT                    | I   | Ground/PLL Initialization | 70     | VCCD                     | --- | Data Bus Power            |
| 31     | GNDP                     | --- | Ground                    | 71     | MD0                      | I/O | Data Bus                  |
| 32     | PCAP                     | I   | PLL Filter Capacitor      | 72     | GNDO                     | --- | Ground                    |
| 33     | VCCP                     | --- | PLL Power                 | 73     | GPIO3                    | I/O | No use                    |
| 34     | GNDS                     | --- | Ground                    | 74     | GPIO2                    | I/O | No use                    |
| 35     | MISO                     | I/O | SPI Master-In-Slave-Out   | 75     | GPIO1                    | I/O | No use                    |
| 36     | RESET                    | I   | Reset                     | 76     | GPIO0                    | I/O | Control Signal with IC631 |
| 37     | MODA                     | I   | Mode Select               | 77     | MRD                      | O   | Memory Read Strobe        |
| 38     | MODB                     | I   | Ground                    | 78     | $\overline{\text{MWR}}$  | O   | Memory Write strobe       |
| 39     | MODC                     | I   | Mode Select               | 79     | $\overline{\text{MCS1}}$ | O   | No use                    |
| 40     | VCCS                     | --- | Serial Interface Power    | 80     | $\overline{\text{MCS2}}$ | O   | No use                    |

## ■MN173222JAP(IC671) : System Control Micon

### 1. Terminal Layout



### 2. Key Matrix

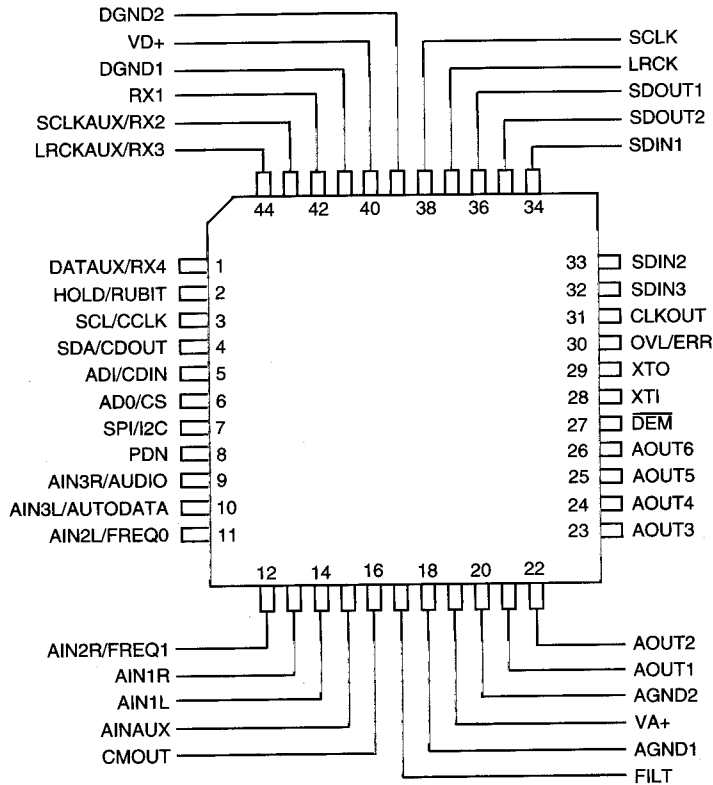
|           | KEY IN 0         | KEY IN 1           | KEY IN 2                       | KEY IN 3        |
|-----------|------------------|--------------------|--------------------------------|-----------------|
| KEY OUT 0 | POWER<br>S401    | DVD MULTI<br>S419  | —                              | —               |
| KEY OUT 1 | SURROUND<br>S402 | PRESET SEA<br>S403 | TUNER/BAND<br>S404             | SETTING<br>S405 |
| KEY OUT 2 | SOURCE<br>S406   | ADJUST<br>S407     | ONE TOUCH<br>OPERATION<br>S408 | MEMORY<br>S409  |
| KEY OUT 3 | ◁ S410           | ▷ S411             | △ S412                         | ▽ S413          |

### 3. Pin Function

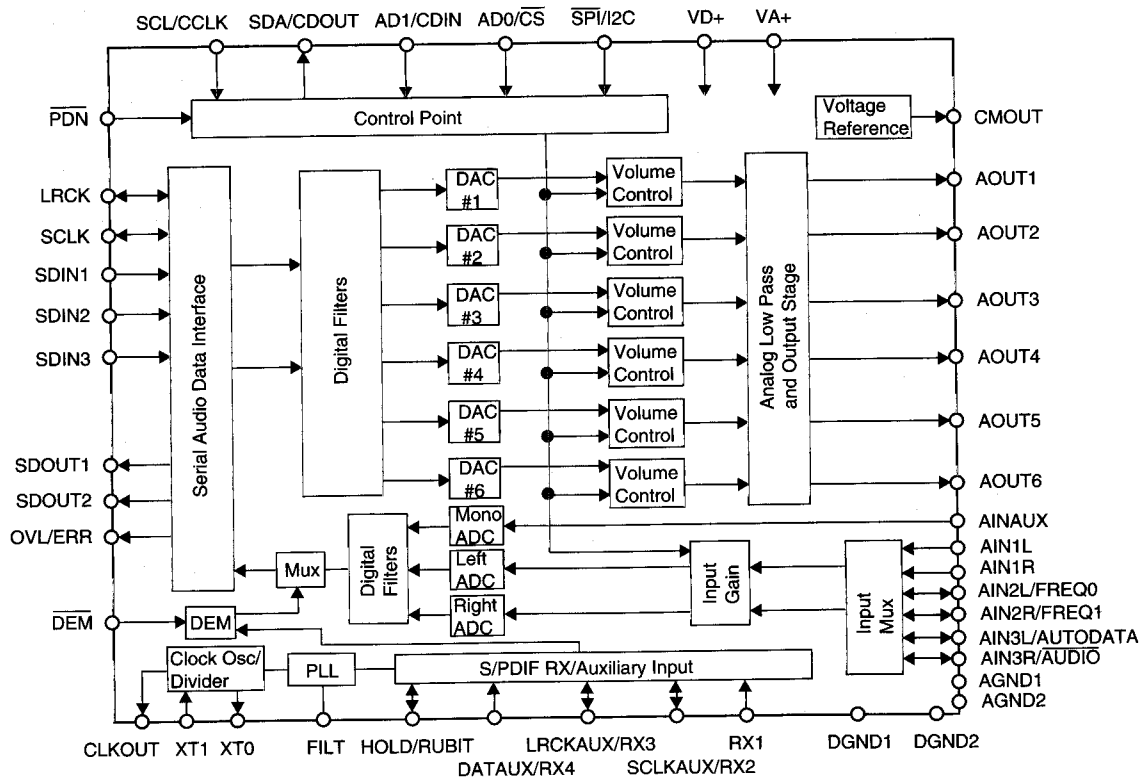
| Pin No. | Symbol   | I/O | Function                         | Pin No. | Symbol   | I/O | Function                                     |
|---------|----------|-----|----------------------------------|---------|----------|-----|--|
| 1       | IN1      | I   | JOG VOLUME control               | 52      | CE       | O   | Chip enable to IC121                         |
| 2       | IN2      | I   | JOG VOLUME control               | 53      | CK       | O   | Clock signal to IC121                        |
| 3       | VIDEO1   | O   | Video select signal              | 54      | DI       | I   | Data signal from IC121                       |
| 4       | VIDEO2   | O   | Video select signal              | 55      | DO       | O   | Data signal to IC121                         |
| 5       | PROTECT  | I   | Protector signal input           | 56      | DCSI     | I   | COMPULINK signal input                       |
| 6       | POWER    | O   | Power ON/OFF control             | 57      | DCSO     | O   | COMPULINK signal output                      |
| 7       | KI0      | I   | Key matrix input                 | 58      | DSP ERR  | I   | Control signal from IC601                    |
| 8       | KI1      | I   | Key matrix input                 | 59      | DSP IFOK | I   | Control signal from IC601                    |
| 9       | KI2      | I   | Key matrix input                 | 60      | DSP ACK  | I   | Control signal from IC601                    |
| 10      | KI3      | I   | Key matrix input                 | 61      | DSP CS   | O   | Control signal to IC601                      |
| 11      | VCR S/C  | I   | VCR S/C select signal input      | 62      | T.MUTE   | O   | Tuner mute signal output                     |
| 12      | G11      | O   | Grid control signal output       | 63      | S.MUTE   | O   | Source muting control                        |
| 13      | G10      | O   | Grid control signal output       | 64      | TV CONT  | O   | AV compulink control output                  |
| 14      | G9       | O   | Grid control signal output       | 65      | TV OUT   | O   | AV compulink output                          |
| 15      | G8       | O   | Grid control & Key matrix output | 66      | VCR OUT  | O   | AV compulink output                          |
| 16      | G7       | O   | Grid control & Key matrix output | 67      | VCR IN   | I   | AV compulink input                           |
| 17      | G6       | O   | Grid control & Key matrix output | 68      | RESET IN | I   | Reset signal input                           |
| 18      | G5       | O   | Grid control & Key matrix output | 69      | X1       | -   | Connect to GND                               |
| 19      | G4       | O   | Grid control signal output       | 70      | X2       | -   | Non connect                                  |
| 20      | G3       | O   | Grid control & Key matrix output | 71      | Vss      | -   | Connect to GND                               |
| 21      | G2       | O   | Grid control & Key matrix output | 72      | OSC2     | -   | Oscillation terminal                         |
| 22      | G1/KO7   | O   | Grid control & Key matrix output | 73      | OSC1     | -   | Oscillation terminal                         |
| 23      | Vpp      | -   | Power supply for FL display      | 74      | VDD      | -   | Power supply                                 |
| 24~39   | S1~S16   | O   | Segment control signal output    | 75      | SET.I    | O   | SETTING indication control                   |
| 40      | DVD S/C  | I   | DVD S/C select signal input      | 76      | ADJ.I    | O   | ADJUST indication control                    |
| 41      | CLK.D    | O   | Clock signal to IC601            | 77      | SURR.I   | O   | SURROUND indication control                  |
| 42      | DATA OUT | O   | Data signal to IC601             | 78      | SOURCE.I | O   | SOURCE indication control                    |
| 43      | DATA IN  | I   | Data signal from IC601           | 79      | SEA.I    | O   | S.E.A. indication control                    |
| 44      | INH      | I   | Inhibit signal input             | 80      | BAND.I   | O   | TUNER/BAND indication control                |
| 45      | RDS CLK  | -   | Non connect                      | 81      | STB      | O   | Strobe signal to<br>IC341~343.252.321.322    |
| 46      | RDS DATA | -   | Non connect                      | 82      | DATA     | O   | Data signal to<br>IC341~343.252.321.322.404  |
| 47      | NC       | -   | Non connect                      | 83      | CLK      | O   | Clock signal to<br>IC341~343.252.321.322.404 |
| 48      | RM       | I   | Remocon signal from IC402        |         |          |     |  |
| 49      | D-START  | -   | Non connect                      |         |          |     |  |
| 50      | STEREO   | I   | Stereo signal input              |         |          |     |  |
| 51      | TUNED    | I   | Tuning signal input              | 84      | STB(EX)  | O   | Strobe signal to IC404                       |

■ CS4226-KQ (IC601) : D/A, A/D Converter

1. Terminal Layout



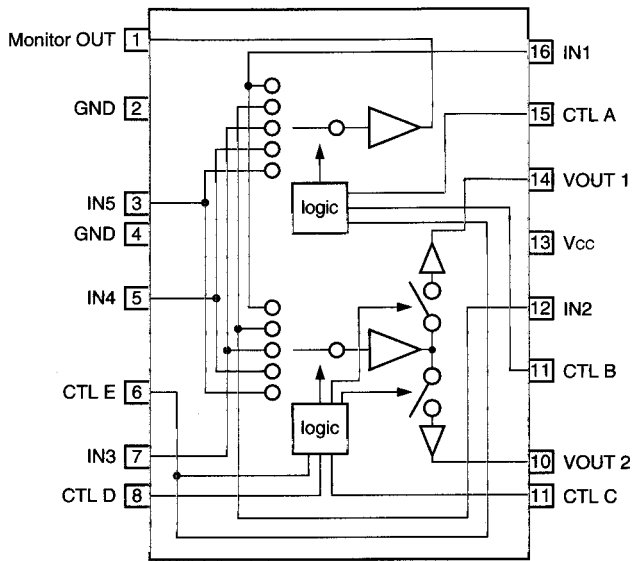
2. Block Diagram



## 3.Functions

| pin no | Symbol                                    | Function  |
|--------|---|---|
| 1      | DATAUX/RX4                                | Auxiliary Dat Input / Receiver Channel 4                  |
| 2      | HOLD/RUBIT                                | S/PDIF Received User Bit / Hold Control                   |
| 3      | SLC/CCLK                                  | Serial Control Interface Clock                            |
| 4      | SDA/CDOUT                                 | Serial Control Data Out                                   |
| 5      | ADI/CDIN                                  | Address Bit / Serial Control Data In                      |
| 6      | AD0/ $\overline{\text{CS}}$               | Address Bit / Control Port Chip Select                    |
| 7      | $\overline{\text{SPI}}/\text{I}2\text{C}$ | Control Port Format                                       |
| 8      | $\overline{\text{PDN}}$                   | Powerdown Pin   |
| 9      | AIN3R/AUDIO                               | Right Channel Mux Input 3/AC3 and MPEG                    |
| 10     | AIN3L/AUTODATA                            | Left Channel Mux Input 3/AC3 and MPEG                     |
| 11     | AIN2L/FREQ0                               | Left Channel Mux Input 2/Channel Status Freq. Bits        |
| 12     | AIN2R/FREQ1                               | Right Channel Mux Input 2/Channel Status Freq. Bits       |
| 13     | AIN1R                                     | Right Channel Mux Input 1                                 |
| 14     | AIN1L                                     | Left Channel Mux Input 1                                  |
| 15     | AINAUX                                    | Auxiliary Line Level Input                                |
| 16     | CMOUT                                     | Common Mode Output  |
| 17     | FILT                                      | PLL Loop Filter Pin                                       |
| 18     | AGND1                                     | Analog Ground   |
| 19     | VA+                                       | Analog Power Input  |
| 20     | AGND2                                     | Analog Ground   |
| 21     | AOUT1                                     | Audio Outputs   |
| 22     | AOUT2                                     | Audio Outputs   |
| 23     | AOUT3                                     | Audio Outputs   |
| 24     | AOUT4                                     | Audio Outputs   |
| 25     | AOUT5                                     | Audio Outputs   |
| 26     | AOUT6                                     | Audio Outputs   |
| 27     | $\overline{\text{DEM}}$                   | De-Emphasis Control                                       |
| 28     | XTI                                       | Crystal Connections                                       |
| 29     | XTO                                       | Crystal Connections                                       |
| 30     | OVL/ERR                                   | Overload Indicator  |
| 31     | CLKOUT                                    | Master Clock Output                                       |
| 32     | SDIN3                                     | Serial Data Input 3                                       |
| 33     | SDIN2                                     | Serial Data Input 2                                       |
| 34     | SDIN1                                     | Serial Data Input 1                                       |
| 35     | SDOUT2                                    | Serial Data Out put 2                                     |
| 36     | SDOUT1                                    | Serial Data Out put 1                                     |
| 37     | LRCK                                      | Left / Right Select Signal I/O                            |
| 38     | SCLK                                      | DSP Serial Port Clock I/O                                 |
| 39     | DGND2                                     | Digital Ground  |
| 40     | VD+                                       | Digital Power Input                                       |
| 41     | DGND1                                     | Digital Ground  |
| 42     | RX1                                       | Receiver Channel 1  |
| 43     | SCLKAUX/RX2                               | Auxiliary Bit Clock Input or Output / Receiver Channel 2  |
| 44     | LRCKAUX/RX3                               | Auxiliary Word Clock Input or Output / Receiver Channel 3 |

■ BA7625 (IC201) : Video Selector

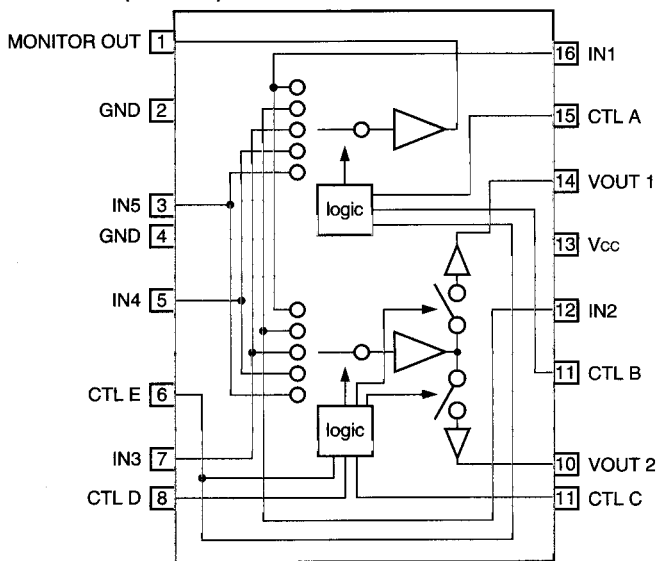


| A | B | E | Monitor OUT |
|---|---|---|-------------|
| L | L | * | IN1         |
| H | L | * | IN2         |
| L | H | * | IN3         |
| H | H | L | IN4         |
| H | H | H | IN5         |

| C | D | E | VOUT1 |
|---|---|---|-------|
| L | L | * | --    |
| H | L | * | IN2   |
| L | H | * | IN3   |
| H | H | L | IN4   |
| H | H | H | IN5   |

| C | D | E | VOUT2 |
|---|---|---|-------|
| L | L | * | IN1   |
| H | L | * | --    |
| L | H | * | IN3   |
| H | H | L | IN4   |
| H | H | H | IN5   |

■ BA7626(IC241) : VIDEO SELECTOR



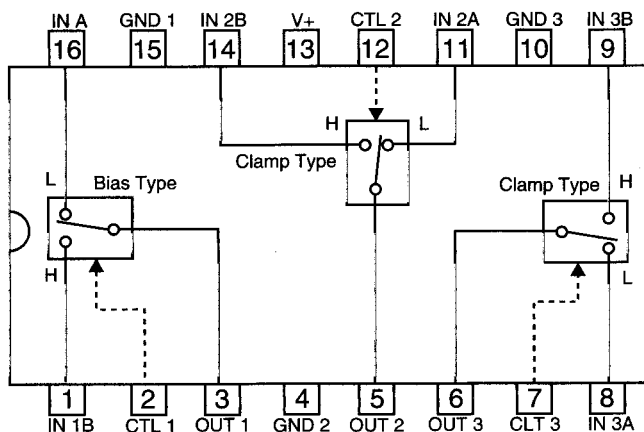
| A | B | E | MONITOR OUT |
|---|---|---|-------------|
| L | L | * | IN1         |
| H | L | * | IN2         |
| L | H | * | IN3         |
| H | H | L | IN4         |
| H | H | H | IN5         |

| C | D | E | VOUT1 |
|---|---|---|-------|
| L | L | * | --    |
| H | L | * | IN2   |
| L | H | * | IN3   |
| H | H | L | IN4   |
| H | H | H | IN5   |

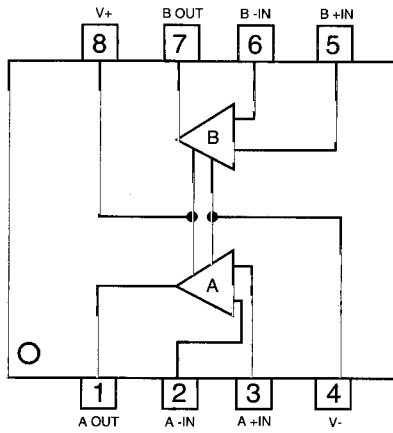
| C | D | E | VOUT2 |
|---|---|---|-------|
| L | L | * | IN1   |
| H | L | * | --    |
| L | H | * | IN3   |
| H | H | L | IN4   |
| H | H | H | IN5   |

■ NJM2285D (IC202) : Video Switch

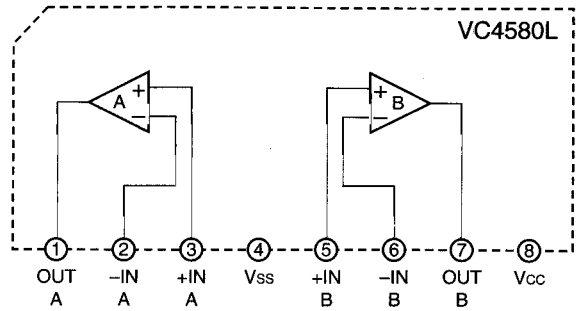
1. Terminal Layout & Block Diagram



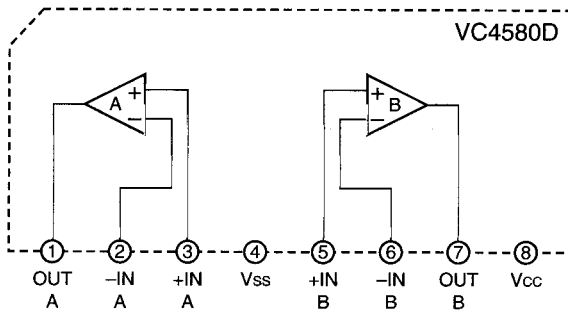
■ NJM4580DD (IC301) : Dual Ope. Amp



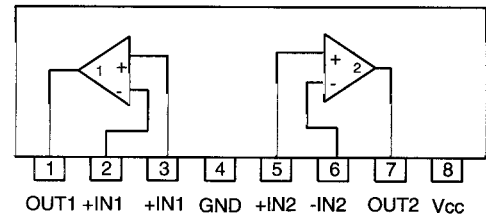
■ NJM4580L (IC361) : Dual Ope. Amp.



■ NJM4580D(IC305) : Dual Ope. Amp

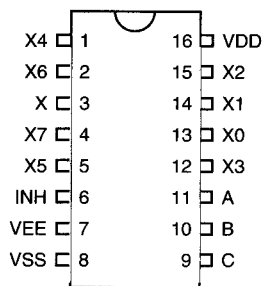


■ BA15218N (IC331,332,333) : Dual Ope. Amp.

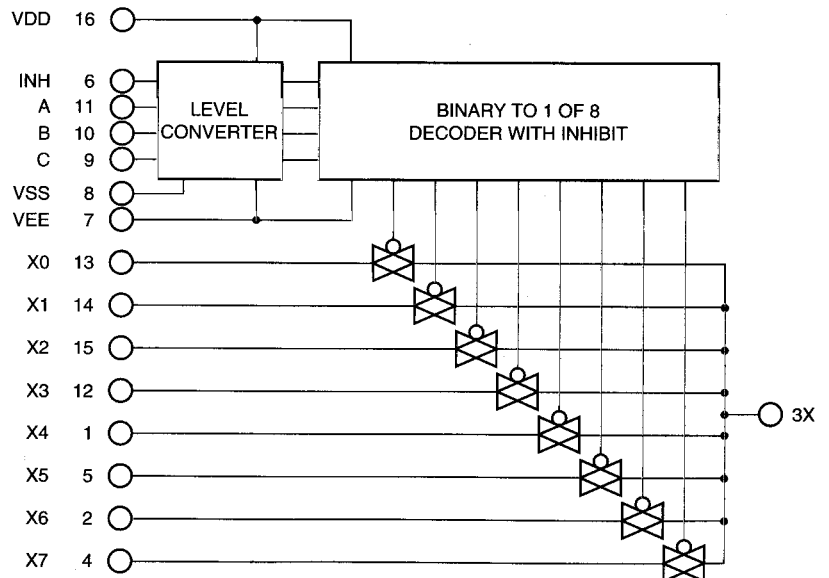


■ BU4051BC (IC341) : Analog Multiplexers / Demultiplexers

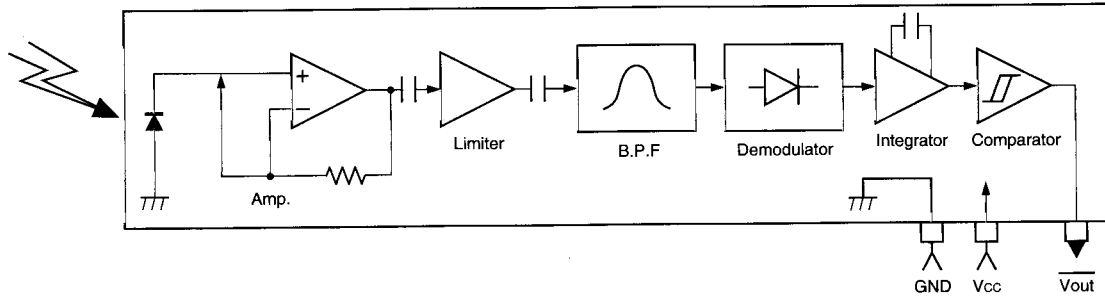
1.Terminal



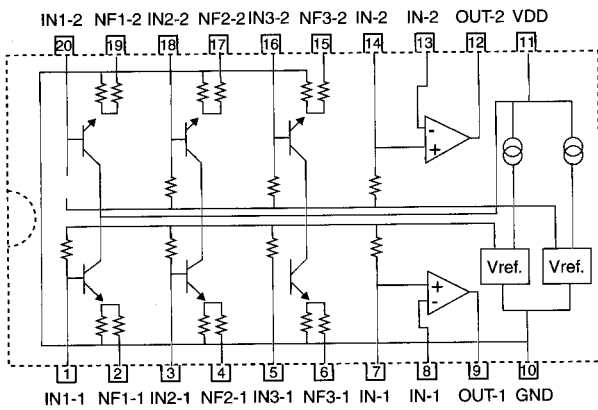
2.Brock Diagram



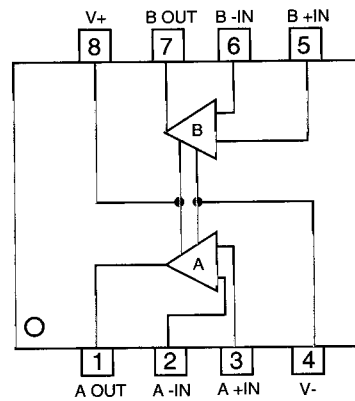
■ GP1U27151X (IC404) : Receiver for remote



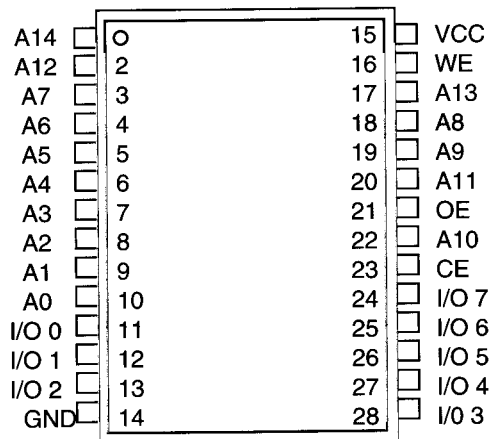
■ M5243P (IC452) : S.E.A. Graphic Equalizer



■ NJM4580E : Dual Ope. Amp. (IC501,511,521,551,561,571,581,591)



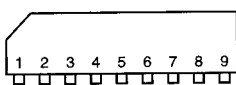
■ N341256SJ-15 (IC651) :



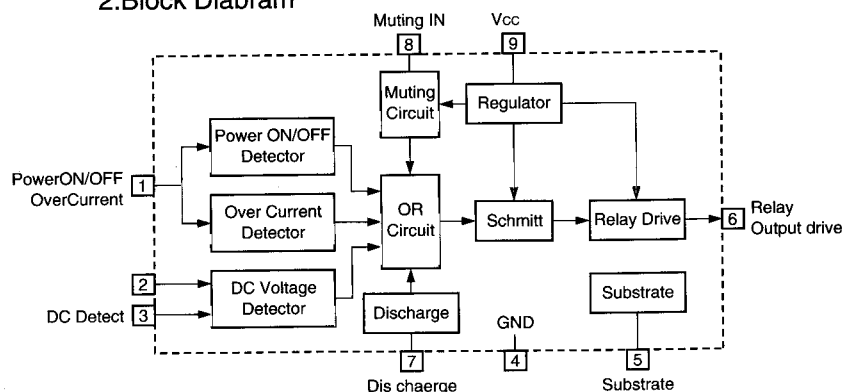
| Symbol      | Terminal              |
|-------------|-----------------------|
| A0-A14      | Address input         |
| I/O 0-I/O 7 | Data I / O            |
| CE          | Chip Enable input     |
| OE          | Output / Enable Input |
| WE          | Write Enable Input    |
| VCC         | Power Supply (+5V)    |
| GND         | Ground                |

■ TA7317P (IC901) : Protector

1. Terminal Lay out



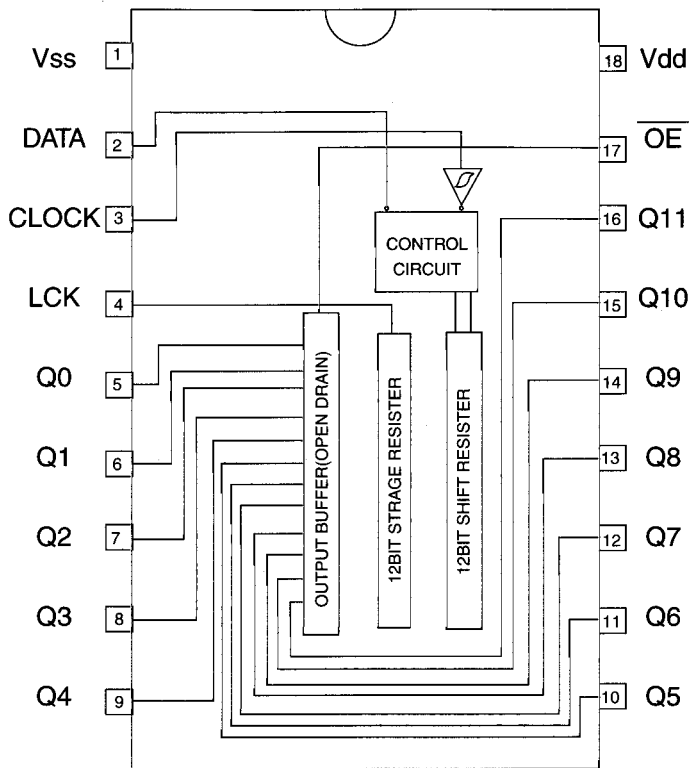
2. Block Diagram





■ BU2092 (IC402) : PORT EXPANDER

1. Terminal Layout

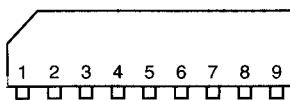


2.Pin Function

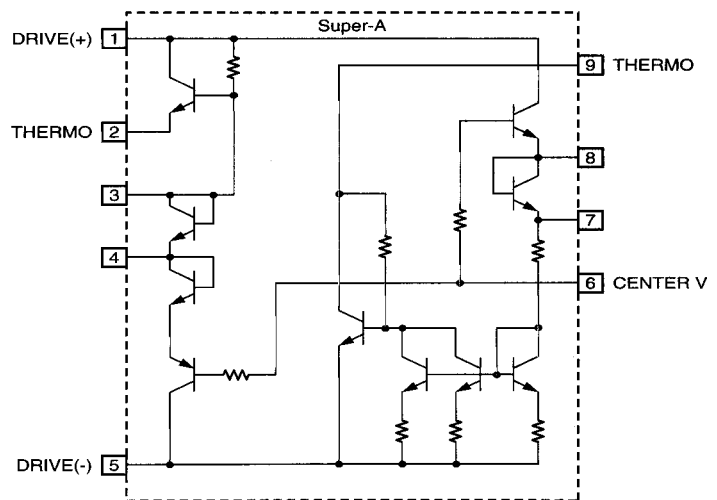
| Pin No.    | Symbol | I/O | Function  |            |   |   |        |    |     |
|------------|--------|-----|---|------------|---|---|--------|----|-----|
| 1          | Vss    | -   | Connect to GND  |            |   |   |        |    |     |
| 2          | DATA   | I   | Serial Data input   |            |   |   |        |    |     |
| 3          | CLOCK  | I   | Shift Clock of Data   |            |   |   |        |    |     |
| 4          | LCK    | I   | Latch Clock of Data   |            |   |   |        |    |     |
| 5~16       | Q0~Q11 | O   | Parallel Data Output<br><table border="1" style="margin-left: 20px;"> <tr> <td>Latch Data</td> <td>L</td> <td>H</td> </tr> <tr> <td>OUTPUT</td> <td>ON</td> <td>OFF</td> </tr> </table> | Latch Data | L | H | OUTPUT | ON | OFF |
| Latch Data | L      | H   |   |            |   |   |        |    |     |
| OUTPUT     | ON     | OFF |   |            |   |   |        |    |     |
| 17         | OE     | I   | Output Enable   |            |   |   |        |    |     |
| 18         | Vdd    | -   | Power Supply  |            |   |   |        |    |     |

■ VC5022-2(IC701.702) : SUPER A

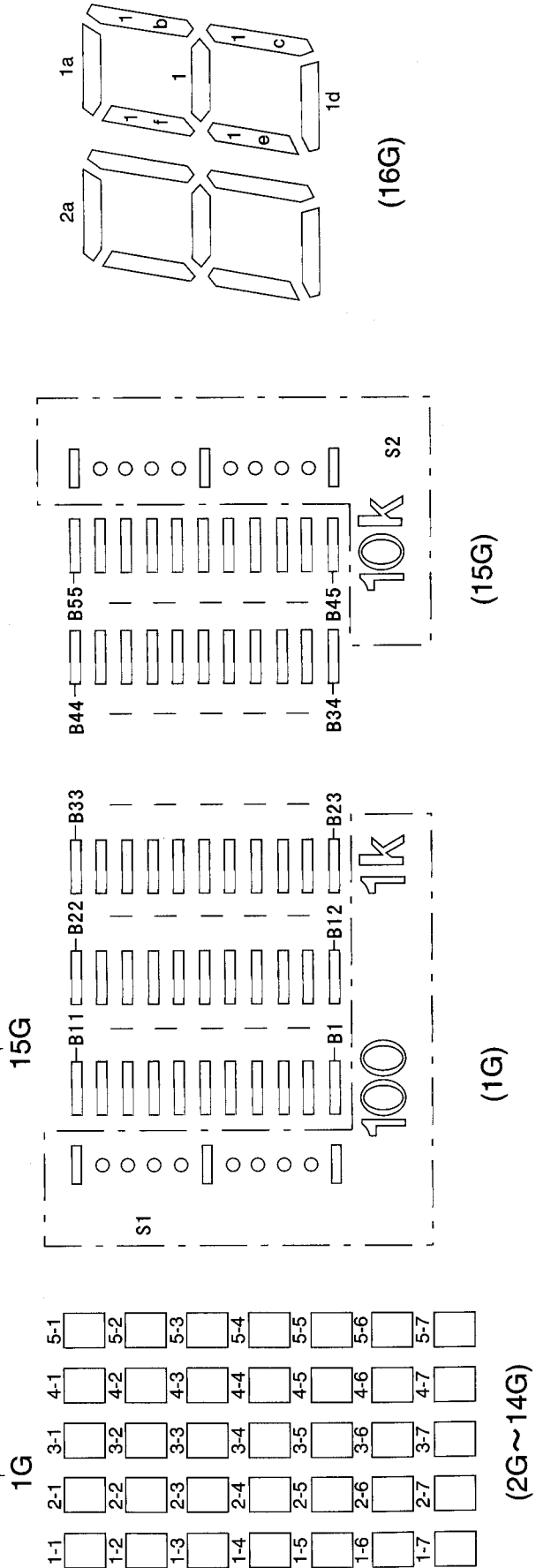
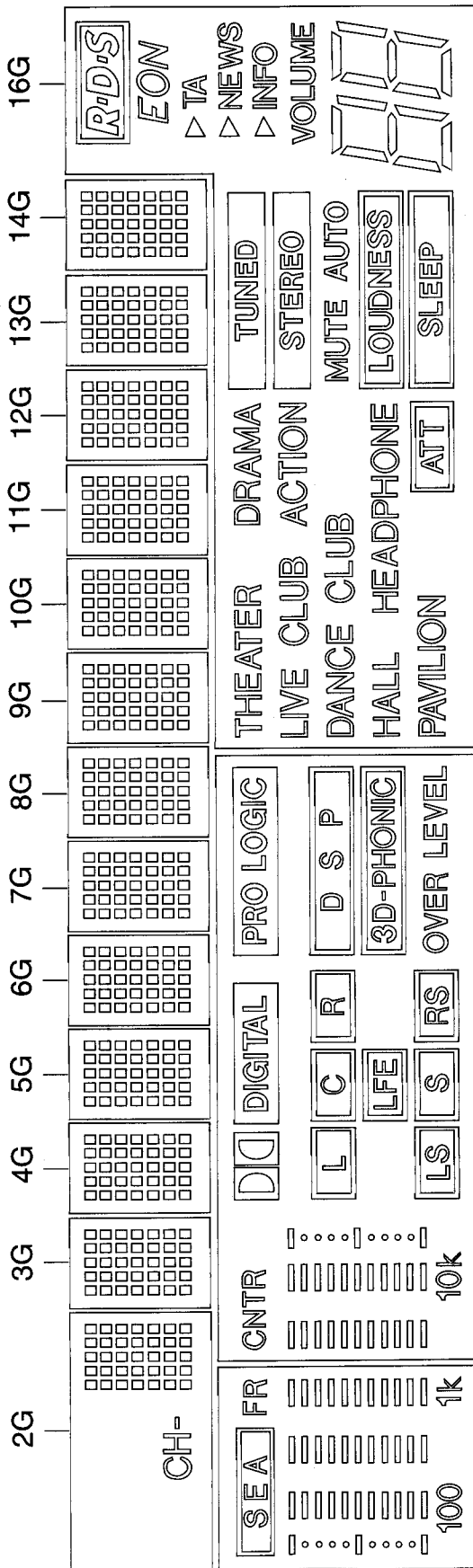
1. Terminal Layout



2. Block Diagram



INTERNAL CONNECTION OF FL DISPLAY TUBE



## ANODE CONNECTION

|     | 1G         | 2G  | 3G~14G | 15G                | 16G             |
|-----|------------|-----|--------|--------------------|-----------------|
| P1  | S1         | 1-1 | 1-1    | S2                 | -               |
| P2  | B1         | 2-1 | 2-1    | B34                | -               |
| P3  | B12        | 3-1 | 3-1    | B45                | 2d              |
| P4  | B23        | 4-1 | 4-1    | B35                | 2e              |
| P5  | B2         | 5-1 | 5-1    | B46                | 2c              |
| P6  | B13        | 1-2 | 1-2    | B36                | 2g              |
| P7  | B24        | 2-2 | 2-2    | B47                | 2f              |
| P8  | B3         | 3-2 | 3-2    | B37                | 2b              |
| P9  | B14        | 4-2 | 4-2    | B48                | 2a              |
| P10 | B25        | 5-2 | 5-2    | B38                | 1d              |
| P11 | B4         | 1-3 | 1-3    | B49                | 1e              |
| P12 | B15        | 2-3 | 2-3    | B39                | 1c              |
| P13 | B26        | 3-3 | 3-3    | B50                | 1g              |
| P14 | B5         | 4-3 | 4-3    | B40                | 1f              |
| P15 | B16        | 5-3 | 5-3    | B51                | 1b              |
| P16 | B27        | 1-4 | 1-4    | B41                | 1a              |
| P17 | B6         | 2-4 | 2-4    | B52                | <b>R-D-S</b>    |
| P18 | B17        | 3-4 | 3-4    | B42                | <b>EON</b>      |
| P19 | B28        | 4-4 | 4-4    | B53                | VOLUME          |
| P20 | B7         | 5-4 | 5-4    | B43                | ▷ INFO          |
| P21 | B18        | 1-5 | 1-5    | B54                | ▷ NEWS          |
| P22 | B29        | 2-5 | 2-5    | B44                | ▷ TA            |
| P23 | B8         | 3-5 | 3-5    | B55                | <b>ATT</b>      |
| P24 | B19        | 4-5 | 4-5    | <b>LS</b>          | <b>SLEEP</b>    |
| P25 | B30        | 5-5 | 5-5    | <b>S</b>           | <b>LOUDNESS</b> |
| P26 | B9         | 1-6 | 1-6    | <b>RS</b>          | PAVILION        |
| P27 | B20        | 2-6 | 2-6    | OVER LEVEL         | HEADPHONE       |
| P28 | B31        | 3-6 | 3-6    | <b>3D-PHONIC</b>   | HALL            |
| P29 | B10        | 4-6 | 4-6    | <b>LFE</b>         | MUTE AUTO       |
| P30 | B21        | 5-6 | 5-6    | CNTR               | <b>STEREO</b>   |
| P31 | B32        | 1-7 | 1-7    | <b>L</b>           | <b>TUNED</b>    |
| P32 | B11        | 2-7 | 2-7    | <b>C</b>           | DANCE CLUB      |
| P33 | B22        | 3-7 | 3-7    | <b>R</b>           | ACTION          |
| P34 | B33        | 4-7 | 4-7    | <b>D S P</b>       | LIVE CLUB       |
| P35 | <b>SEA</b> | 5-7 | 5-7    | <b>D I</b> DIGITAL | DRAMA           |
| P36 | FR         | CH- | -      | <b>PRO LOGIC</b>   | THEATER         |

## Disassembly Procedures

### ■ Removing the Top cover

(See Fig. 1)

1. From behind body, remove the four screws ① of the left and right side and three screws ② of the rear side on top cover.
2. Lift the back of the top cover spreading both sides to remove.

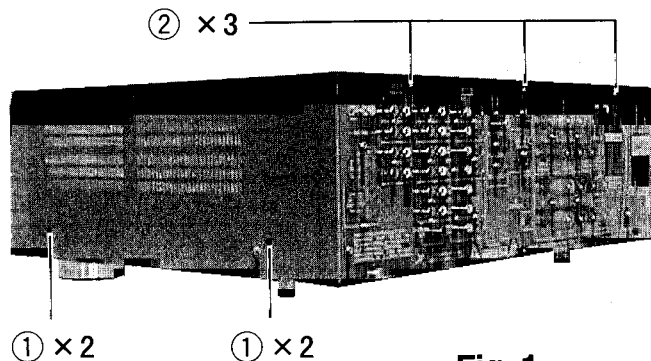


Fig. 1

### ■ Removing the Front panel

(See Fig. 2)

1. Remove the Top cover.
2. Disconnect the six connectors CN202, CN206, CN244, CN400, CN402 and CN416.
3. Remove the three screws ③ on top side of Front panel and five screws ④ on under the Front panel.
4. Remove the Front panel assembly.

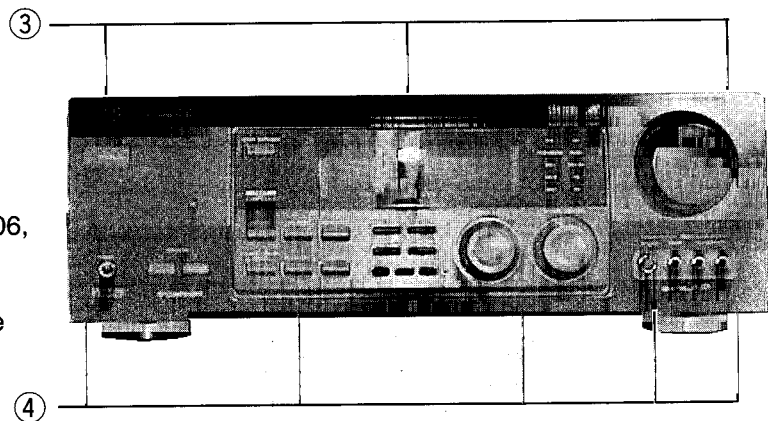


Fig. 2

### ■ Removing the Rear panel

(See Fig. 3)

1. Remove the Top cover.
2. Pull out the Cord stopper ⑤.
3. Remove the 27pcs screws ⑥ on Rear panel.
4. Remove the Rear panel.

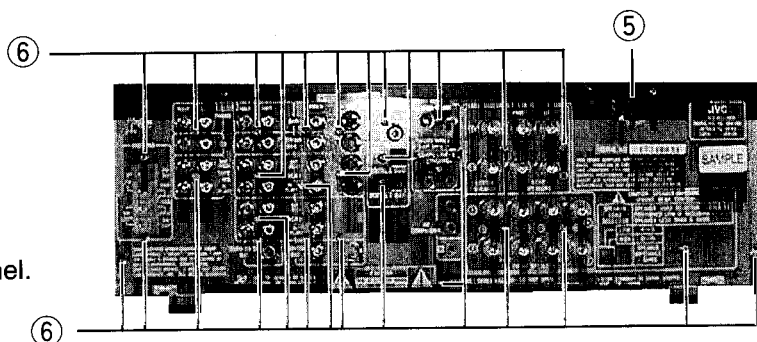


Fig. 3

■ **Removing Front P.C. board**

( See Figs. 4 and 5 )

1. Remove the Top cover.
2. Remove the Front panel.
3. Pull out the volume knob ⑦ , then turn off to counterclockwise the volume nut ⑧ .
4. Remove the six screws ⑨ and disconnect connector wire at CN422 ⑩ and CN430 ⑪ .
5. Remove the Front P.C. board.

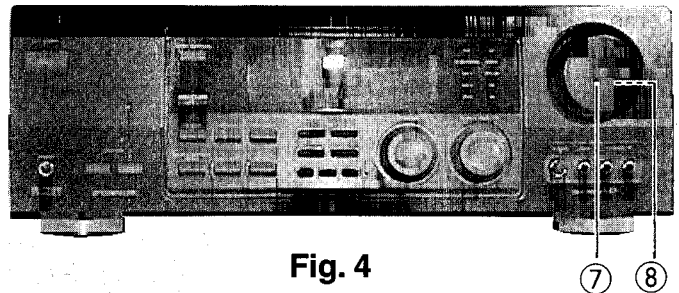


Fig. 4

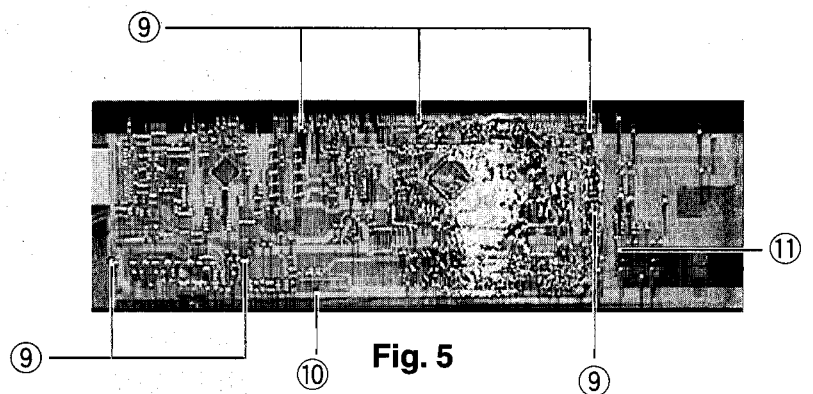


Fig. 5

■ **Removing Switch P.C. board**

( See Fig. 6 )

1. Remove the Top cover.
2. Remove the Front panel.
3. Remove the Front P.C. board.
4. Remove the six screws ⑫ and disconnect connector wire at CN422 ⑬ and CN430 ⑭ .
5. Remove the P.C. board cover from four engagements ⑮ at front panel.
6. Remove the Switch P.C. board.

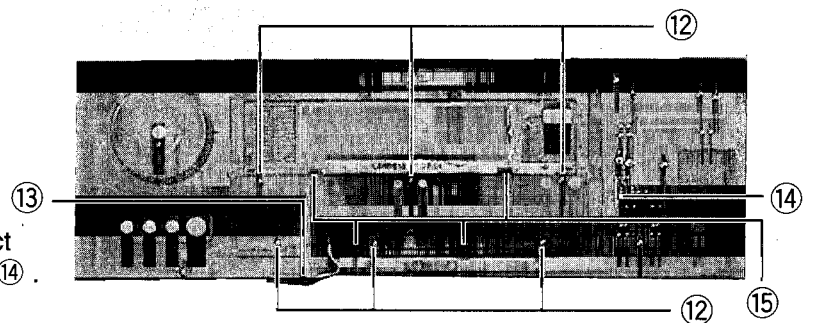


Fig. 6

■ **Removing Remote P.C. board**

( See Fig. 7 )

1. Remove the Top cover.
2. Remove the Front panel.
3. Remove four screws ⑯ .
4. Remove the Remote P.C. board.

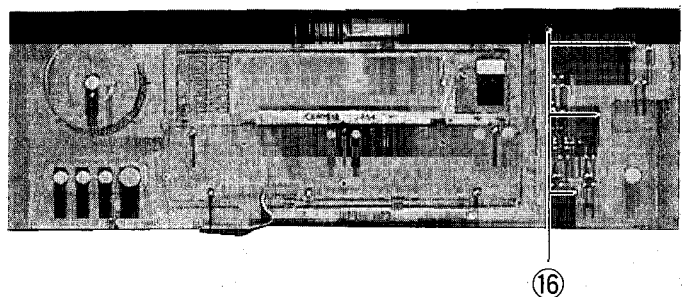


Fig. 7

### ■ Removing the Main P.C. board

( See Fig. 8 )

1. Remove the Top cover.
2. Remove the Front panel.
3. Remove the Rear panel.
4. Remove the Joint P.C.board ⑰, ⑱ and ⑲.
5. Remove the Pre amp P.C. board ⑳.
6. Remove the Tuner P.C. board ㉑.
7. Remove the SEA P.C. board ㉒.
8. Remove the Analog P.C. board ㉓.
9. Remove the Center tone P.C. board ㉔.
10. Remove the V-Audio P.C. board ㉕.
11. Remove the Video P.C. board ㉖.
12. Remove the S-Video P.C. board ㉗.
13. Remove the TXT Compulink P.C. board ㉘.
14. Remove the seven screws ㉙ and take off the shield cover ㉚.
15. Remove the DSP P.C. board ㉛.
16. Remove the five screws ㉜.
17. The Main P.C. board slide to right way and lift up right side of the Main P.C. board.

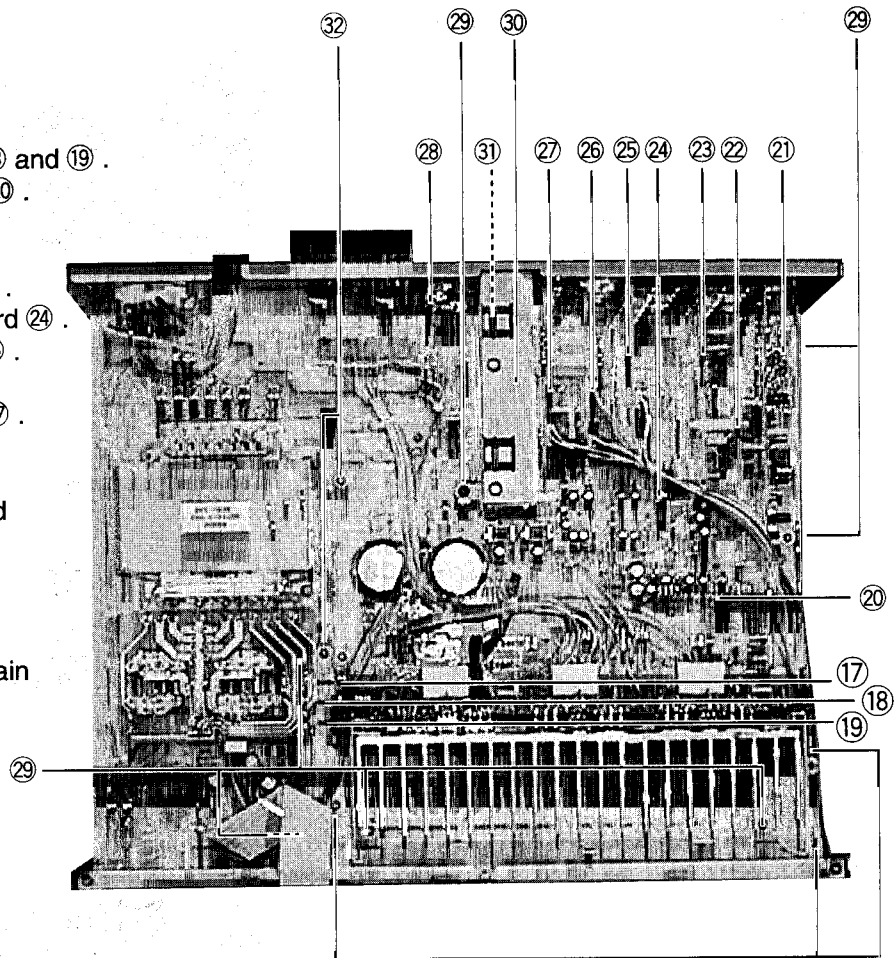


Fig. 8

### ■ Removing the Amp P.C. board

( See Fig. 9 )

1. Remove the Top cover.
2. Remove the Front panel.
3. Remove the Rear panel.
4. Remove the Joint P.C. board ⑰, ⑱ and ⑲.
5. Remove the Pre amp P.C. board ⑳.
6. Remove the Tuner P.C. board ㉑.
7. Remove the SEA P.C. board ㉒.
8. Remove the Analog P.C. board ㉓.
9. Remove the Center tone P.C. board ㉔.
10. Remove the V-Audio P.C. board ㉕.
11. Remove the Video P.C. board ㉖.
12. Remove the S-Video P.C. board ㉗.
13. Remove the TXT Compulink P.C. board ㉘.
14. Remove the six screws ㉙ and four screws ㉚.
15. Remove the Amp P.C. board.

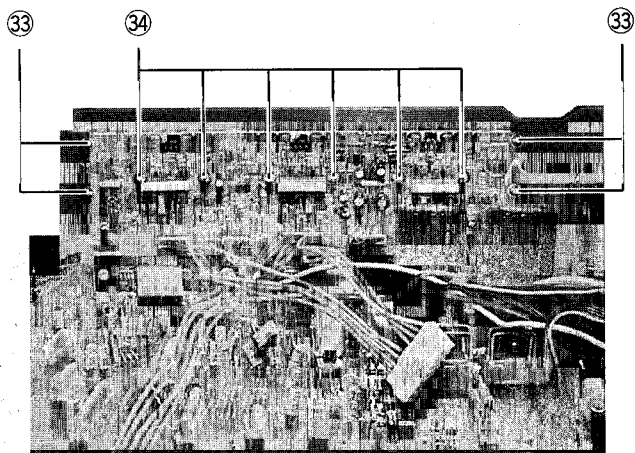


Fig. 9

## Adjustment Procedures

### ■ TUNER SECTION

#### 1. Tuner range

|    |                  |
|----|------------------|
| FM | 87.5MHz~108.0MHz |
| MW | 530kHz~1710kHz   |

#### 2. Tuning voltage

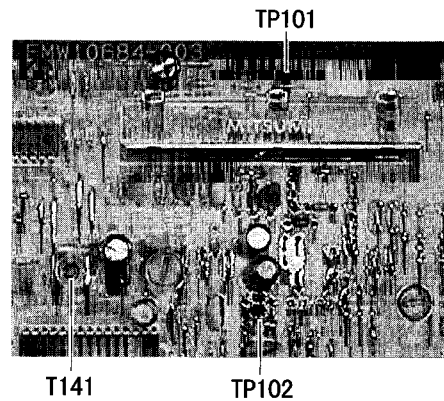
Confirm the voltages in the table at TP101

##### FM tuning voltage (Unit V)

|          |       |                 |
|----------|-------|-----------------|
| 87.5MHz  | 1.6 < | ( Nominal 2.0 ) |
| 108.0MHz | 8.0 < | ( Nominal 9.0 ) |

##### MW tuning voltage (Unit V)

|         |       |                 |
|---------|-------|-----------------|
| 530kHz  | 0.8 < | ( Nominal 1.0 ) |
| 1710kHz | 8.0 < | ( Nominal 8.8 ) |

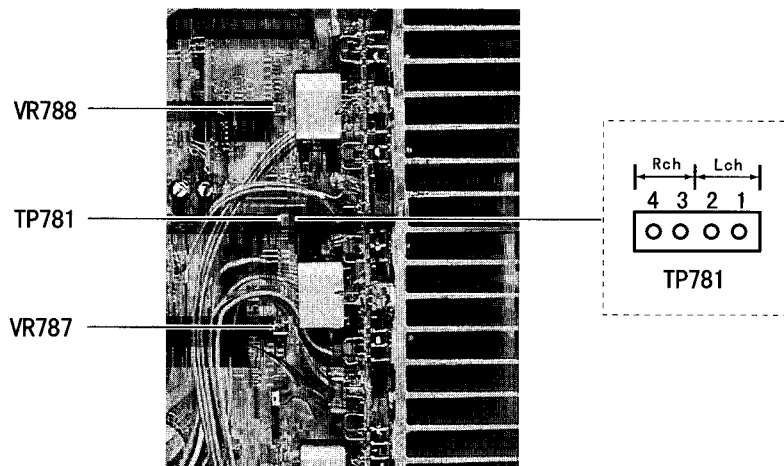


#### 3. FM center meter

Receive a broadcast by using the function of 'AUTO STOP'

Adjust T141 (Detector coil) so that the voltage at TP102 becomes  $0 \pm 1.5\text{mV}$

### ■ POWER AMPLIFIER SECTION



#### IDLING CURRENT

1. Set the volume control to minimum during this adjustment. set the surround mode "OFF"

2. Turn VR787 and VR788 fully counterclockwise to warm up before adjustment.

If the heat sink is already warm from previous use the correct adjustment can not be made.

3. For L-ch, connect a DC voltmeter between TP001's pin1 and pin2 (Lch)

And, connect it between pin3 and pin4(Rch).

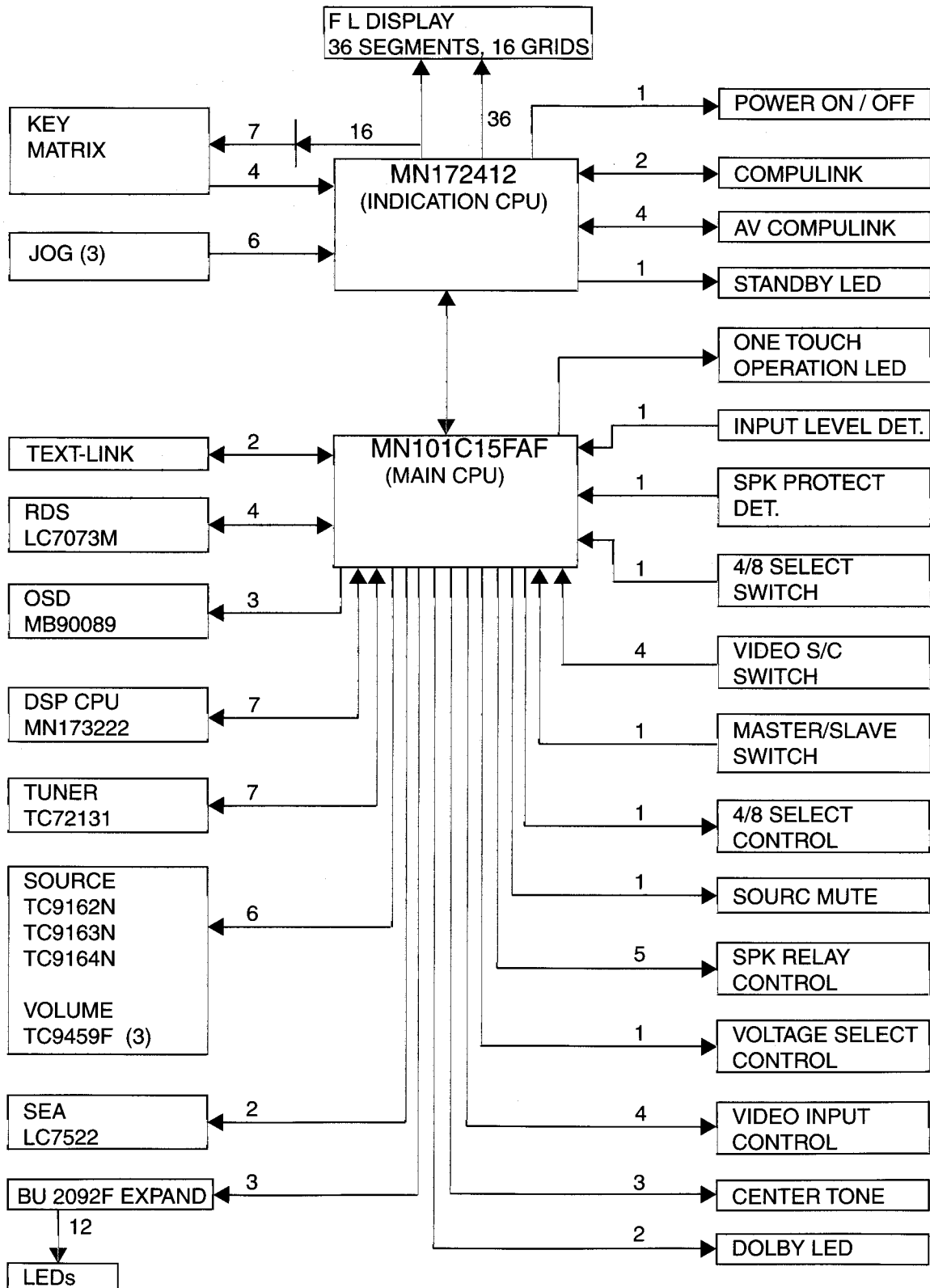
4. 30 minutes later after power on, adjust VR741 for L-ch, or VR742 for R-ch so that the DC voltmeter value has  $1\text{mV} \sim 10\text{mV}$ .

**-MEMO-**

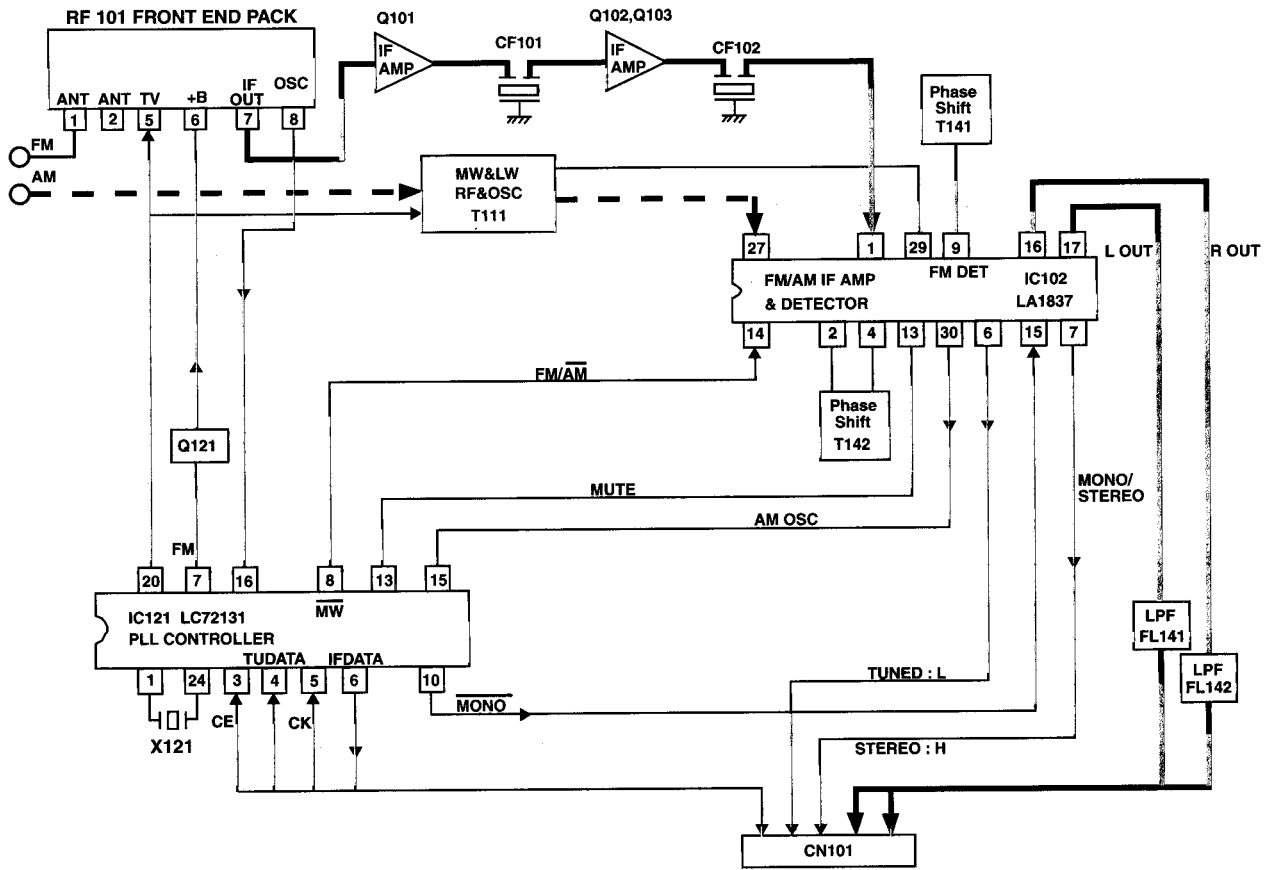


# Block Diagram

## CPU System



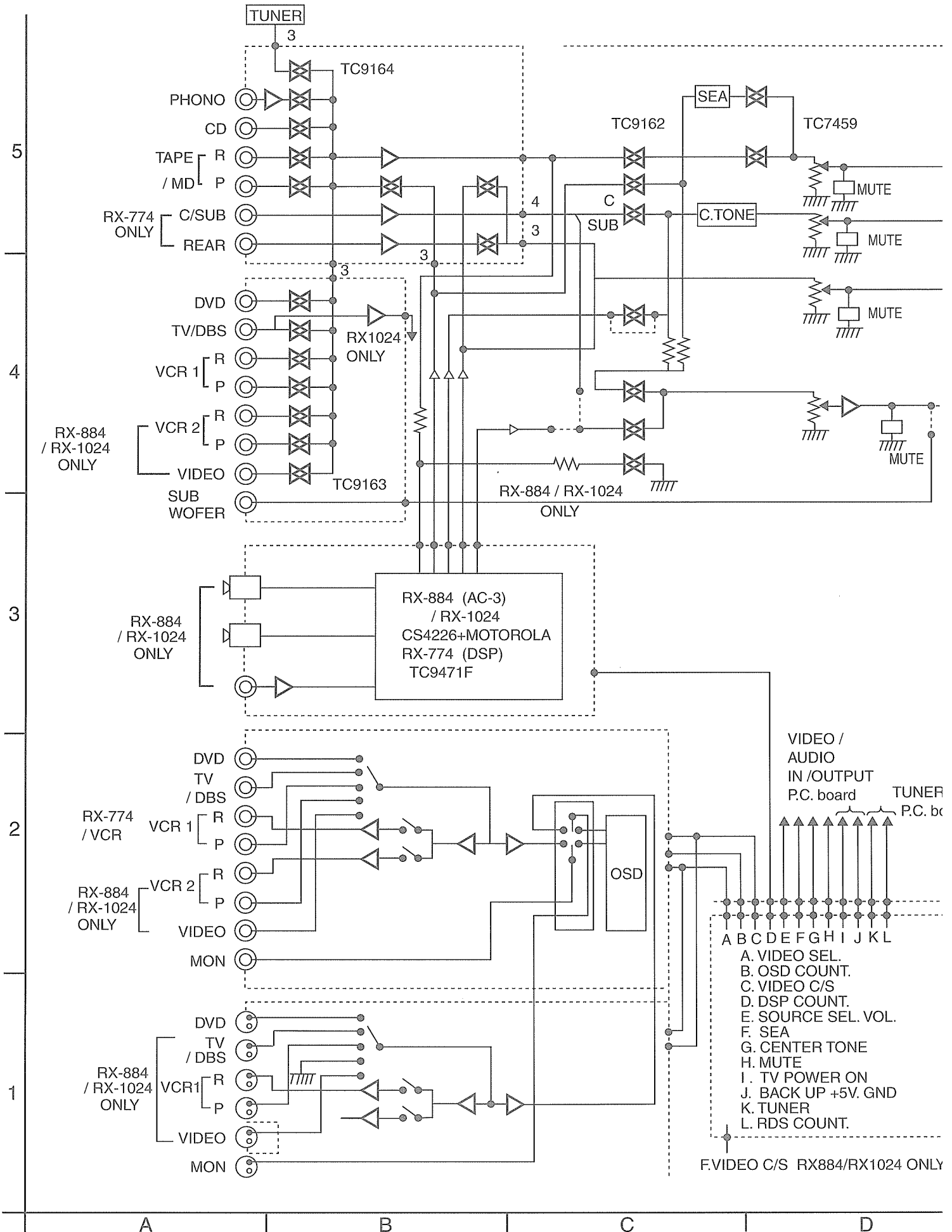
Tuner Section

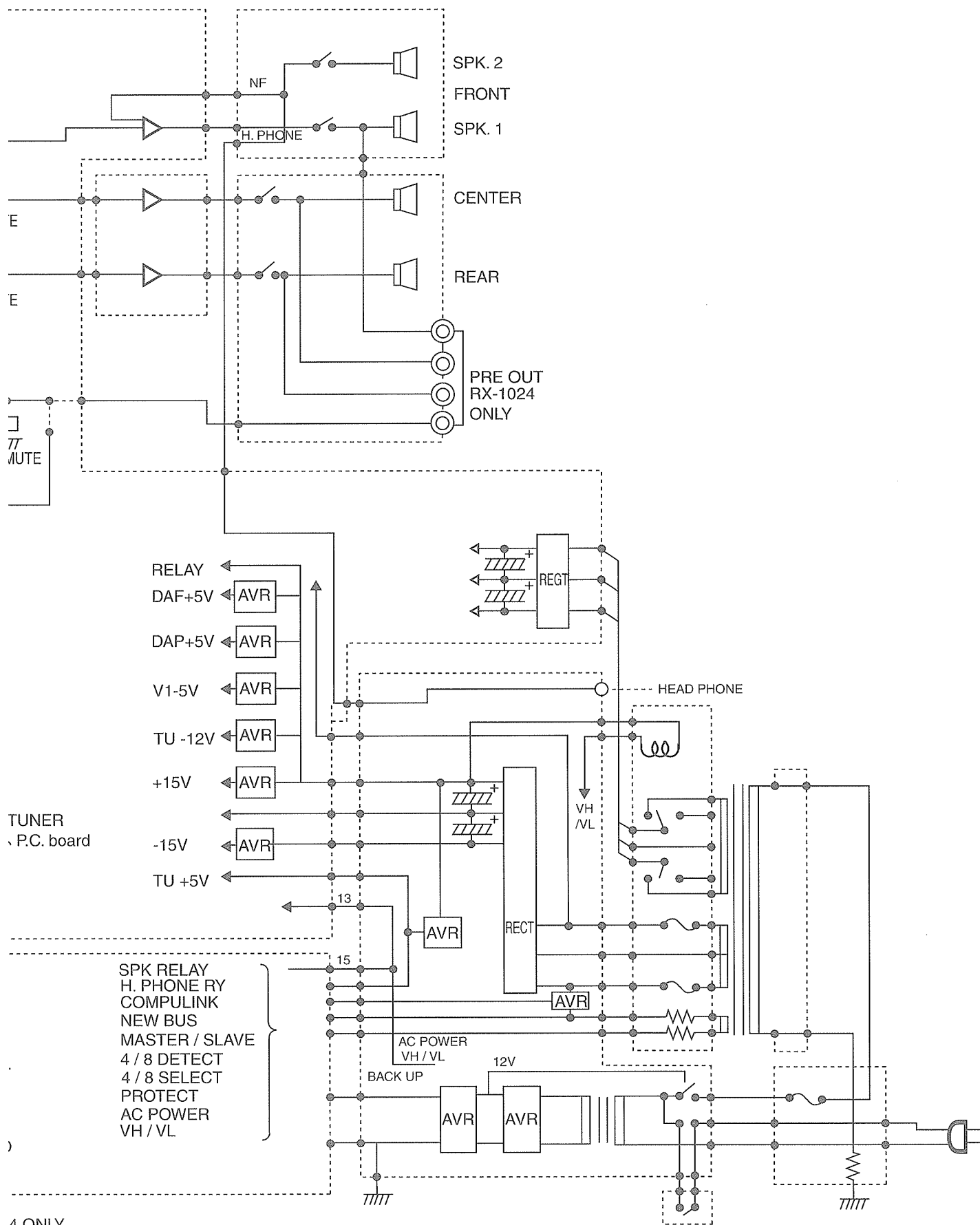




# Block diagram

For RX-774/884/1024



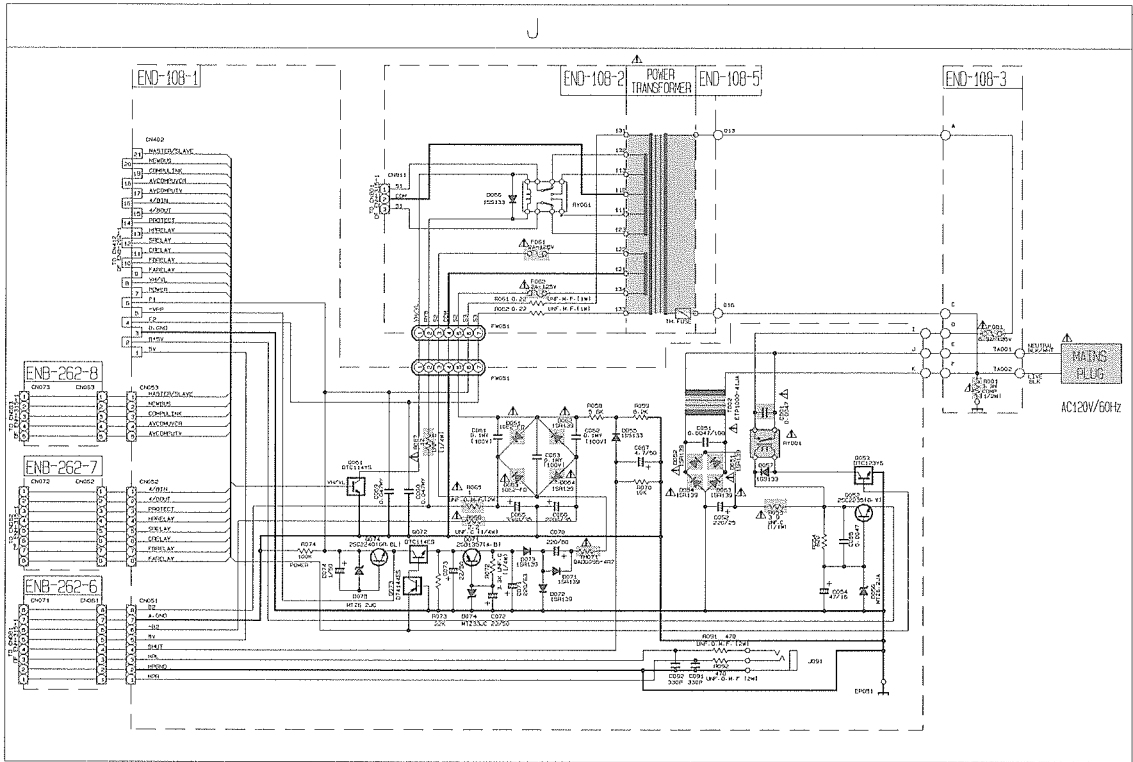


# Schematic Diagrams

## POWER PRIMARY SECTION

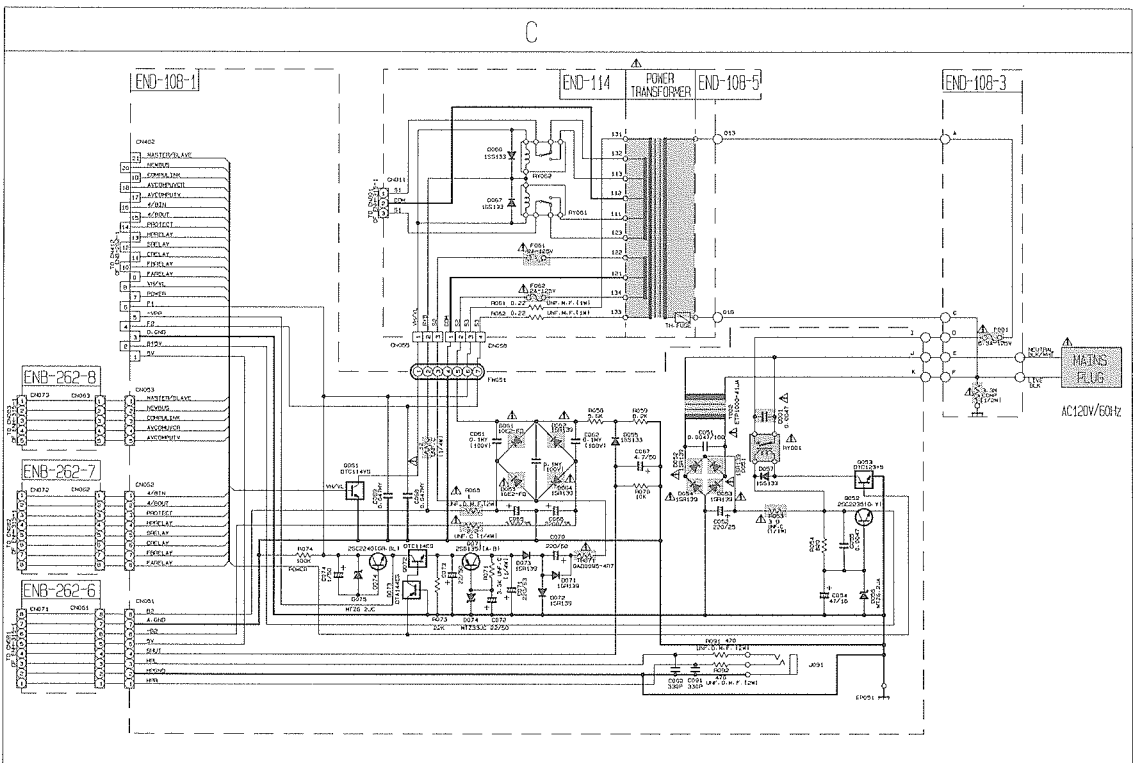
5

4



3

2



1

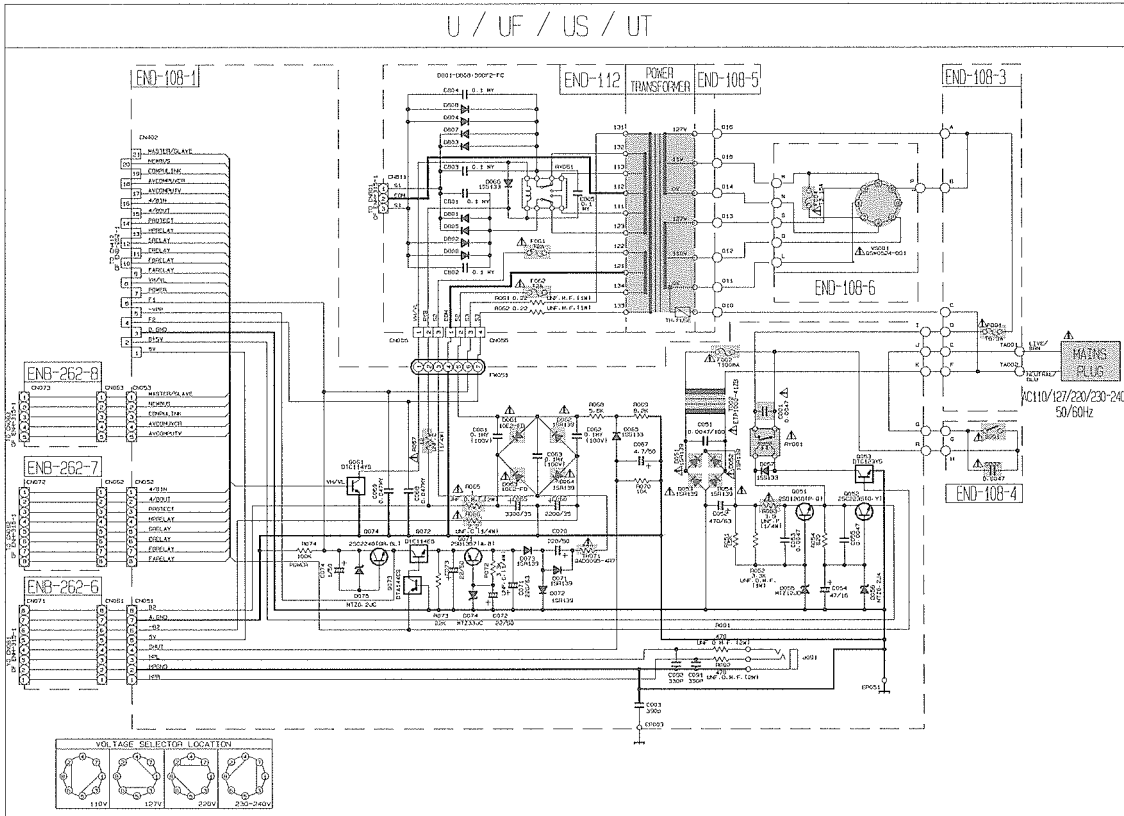
| VERSION CODES |                               |
|---------------|-------------------------------|
| EN:           | NORDIC COUNTRIES              |
| E:            | CONTINENTAL EUROPE            |
| B:            | U. K.                         |
| C:            | CANADA                        |
| J:            | U. S. A.                      |
| US:           | SINGAPORE                     |
| UT:           | TAIWAN                        |
| UF:           | CHINA                         |
| U:            | UNIVERSAL EXCEPT ALL OF ABOVE |

| SHEET NUMBER | CIRCUIT DESCRIPTION  |
|--------------|--|
| 1/11         | PRIMARY / RECTIFIER  |
| 2/11         | VOLUME (FRONT/CENTER/REAR ch.) / SEA / SOURCE SELECT IC                        |
| 3/11         | AUDIO AMP (FRONT ch.1 / SPEAKER TERMINAL (FRONT ch.1) / REGULATOR / RECTIFIER  |
| 4/11         | AUDIO AMP (CENTER/REAR ch.1) / SPEAKER TERMINAL (CENTER/REAR ch.1)             |
| 5/11         | AUDIO SIGNAL INPUT TERMINAL / SOURCE SELECT IC / SYSTEMCONTROL SIGNAL TERMINAL |
| 6/11         | VIDEO SIGNAL INPUT TERMINAL / SOURCE SELECT IC                                 |
| 7/11         | USER CONTROL KEYS / SYSTEMCONTROL LSI / FL DISPLAY                             |
| 8/11         | SUBROUND IC / DIGITAL SIGNAL INPUT TERMINAL                                    |
| 9/11         | TUNER (ONLY C/D)   |
| 10/11        | TUNER (ONLY B/E/EN)  |
| 11/11        | TUNER (ONLY W/LF/US/UT)  |

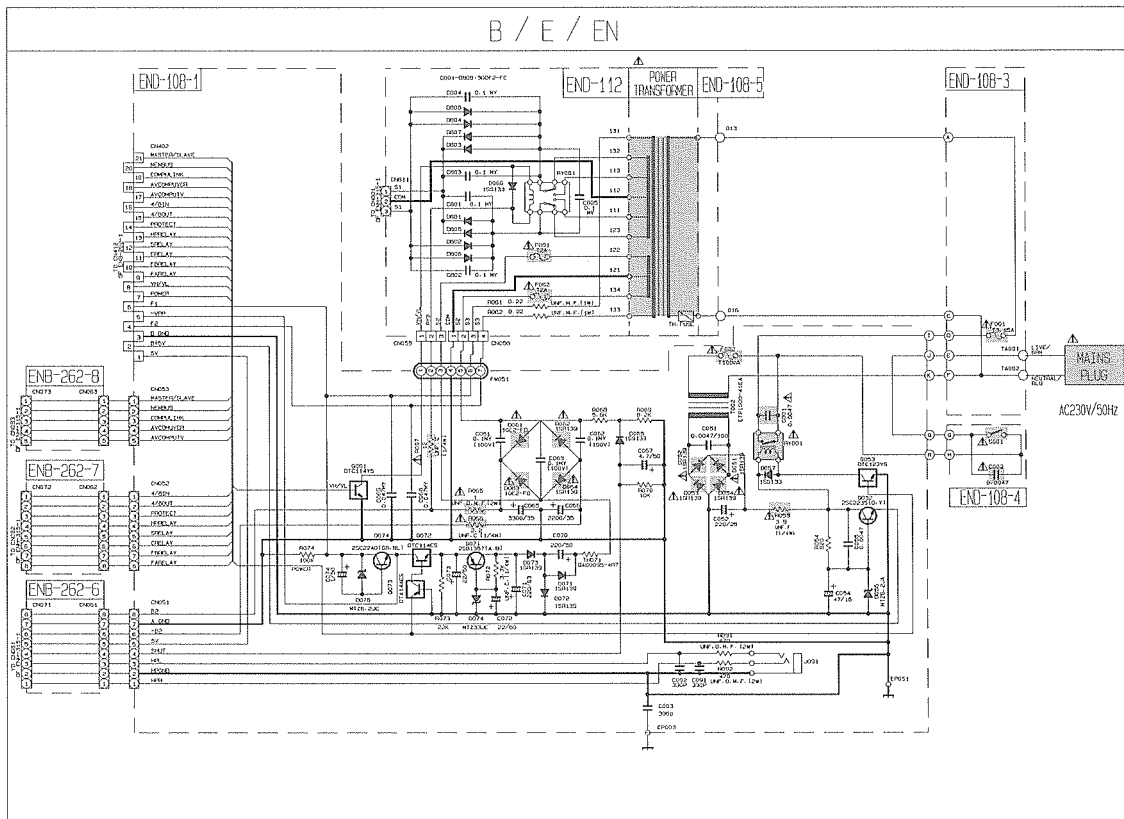
NOTES:  
MARK (\*) IS TO  
DETAILS ARE I

EXPLANAT  
RX-BE

U / UF / US / UT



B / E / EN



K(\*) IS TO SHOW DEVIATION IN VERSIONS.

\*TAILS ARE EXPLAINED NEAR THE MARK.

EXPLANATION OF OVERALL OF SCHEMA.

FX-884VBR/FX-884RBR/FX-884PBR/FX-884P6D

▲ Parts are safety assurance parts.  
When replacing those parts make sure to use the specified one.

# MAIN AMP. SECTION

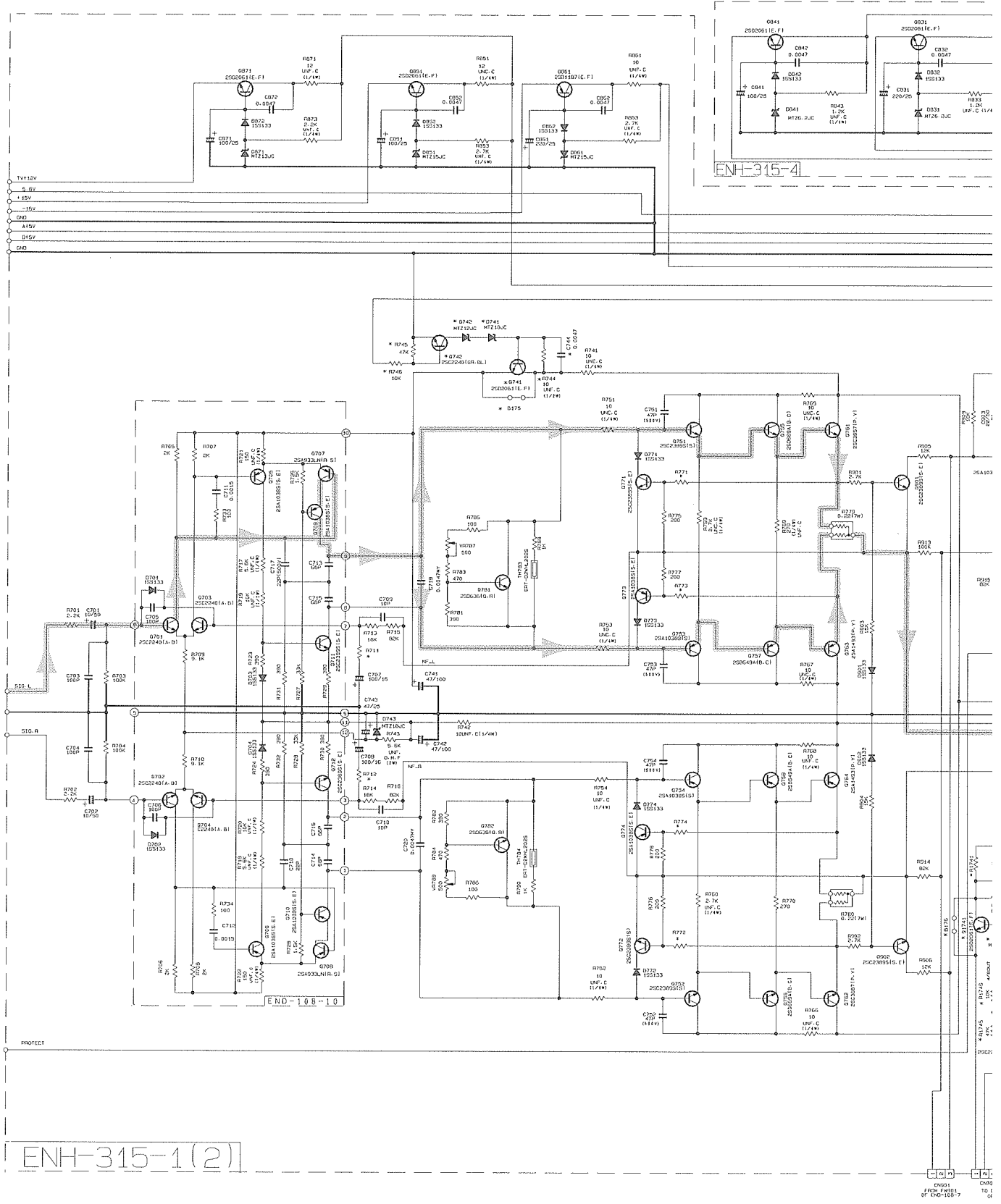
5

4

3

2

1



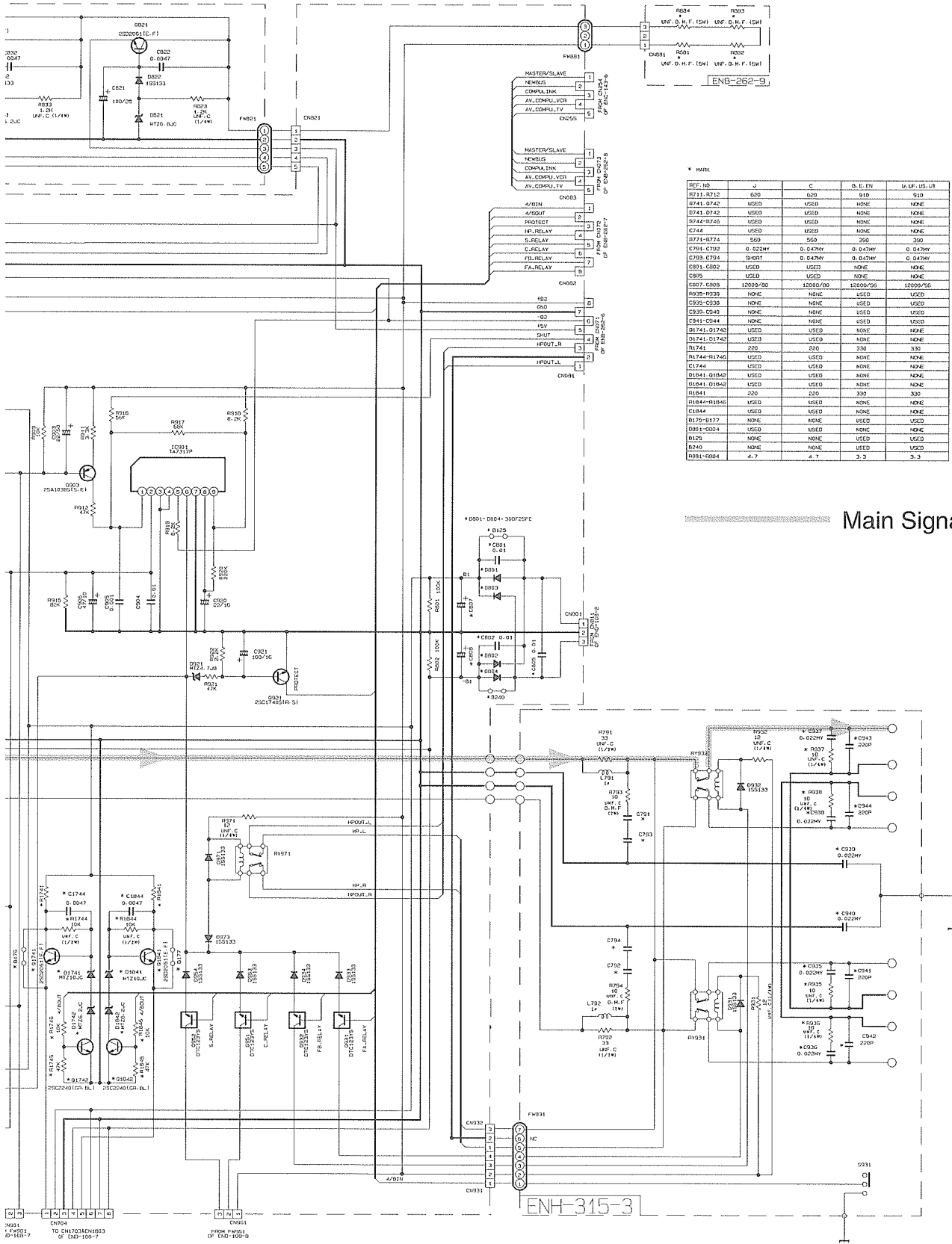
A

B

C

D





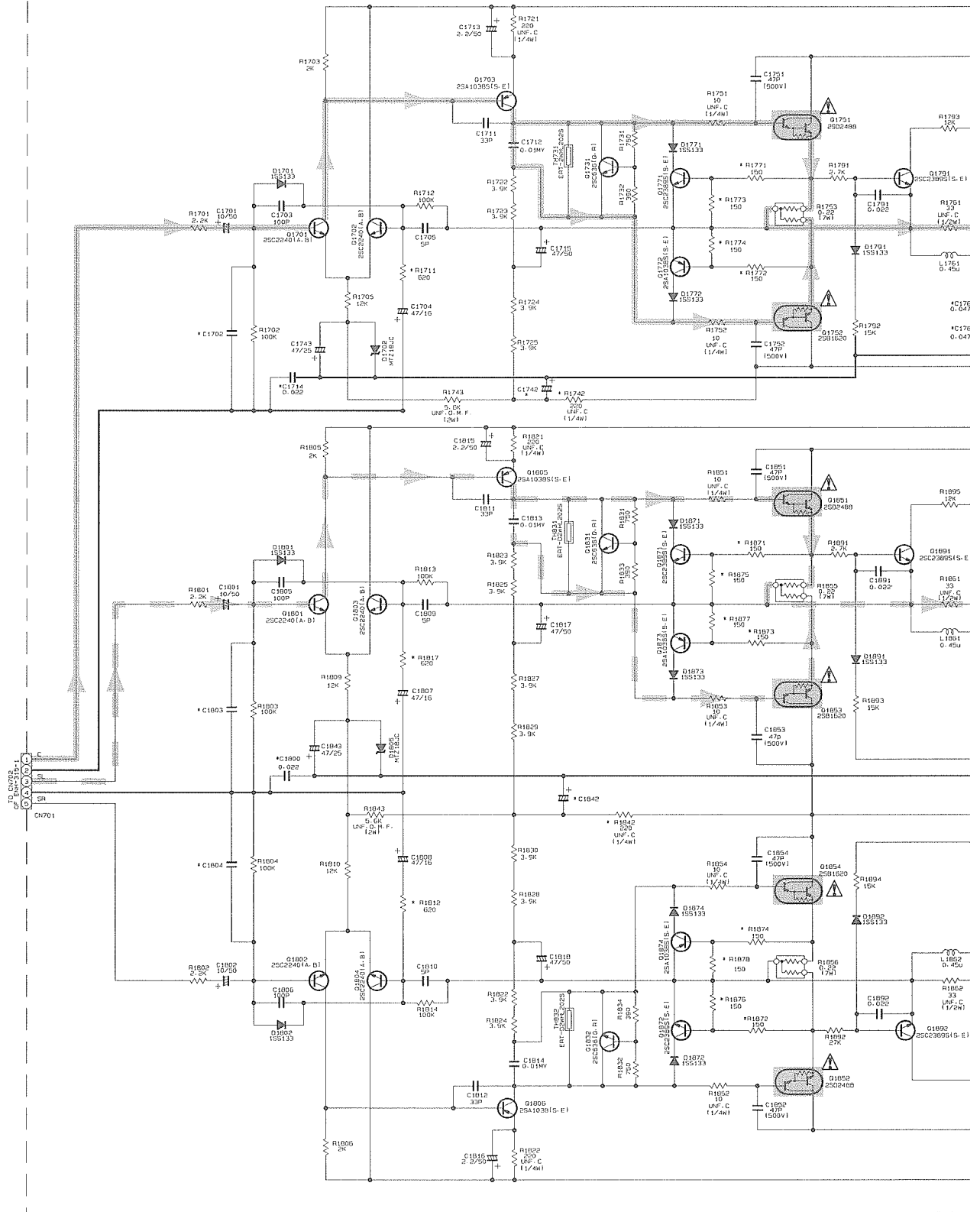
\* MURC

| REF. NO     | Q        | C        | D, E, FN | U, V, US, U1 |
|-------------|----------|----------|----------|--------------|
| D711-D712   | USED     | USED     | NONE     | NONE         |
| D741-D742   | USED     | USED     | NONE     | NONE         |
| D744-D745   | USED     | USED     | NONE     | NONE         |
| D744        | USED     | USED     | NONE     | NONE         |
| D771-D774   | USED     | USED     | NONE     | NONE         |
| C731-C732   | 0.022HF  | 0.047HF  | 0.047HF  | 0.047HF      |
| C733-C734   | 560HT    | 0.047HF  | 0.047HF  | 0.047HF      |
| C801-C802   | USED     | USED     | NONE     | NONE         |
| C805        | USED     | USED     | NONE     | NONE         |
| C807-C808   | 1200P/50 | 1200P/50 | 1200P/50 | 1200P/50     |
| H939-H939   | NONE     | NONE     | USED     | USED         |
| C935-C938   | NONE     | NONE     | USED     | USED         |
| C939-C940   | NONE     | NONE     | USED     | USED         |
| C941-C944   | NONE     | NONE     | USED     | USED         |
| D1741-D1742 | USED     | USED     | NONE     | NONE         |
| D1741       | USED     | USED     | NONE     | NONE         |
| R1741       | 220      | 220      | 220      | 220          |
| R1744-R1745 | USED     | USED     | NONE     | NONE         |
| C1744       | USED     | USED     | NONE     | NONE         |
| D1841-D1842 | USED     | USED     | NONE     | NONE         |
| D1841       | USED     | USED     | NONE     | NONE         |
| R1841       | 220      | 220      | 220      | 220          |
| R1844-R1845 | USED     | USED     | NONE     | NONE         |
| C1844       | USED     | USED     | NONE     | NONE         |
| R1844       | 220      | 220      | 220      | 220          |
| D1875-D1877 | NONE     | NONE     | USED     | USED         |
| D851-D854   | USED     | USED     | NONE     | NONE         |
| R125        | NONE     | NONE     | USED     | USED         |
| R140        | NONE     | NONE     | USED     | USED         |
| R881-R884   | 4.7      | 4.7      | 2.2      | 2.2          |

Main Signal

REAR / CENTER AMP. SECTION

END-108-7



5

4

3

2

1

A

B

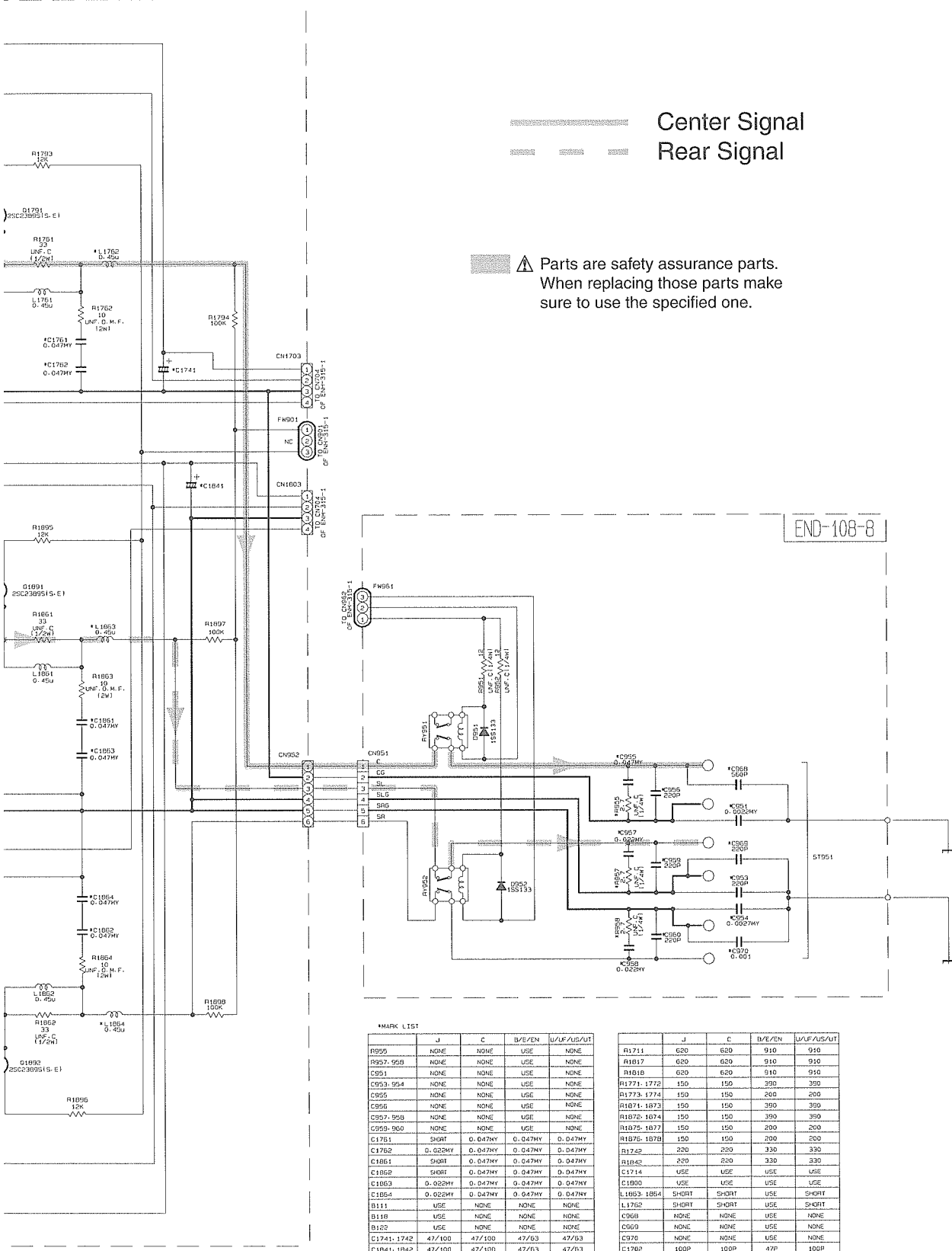
C

3-6

D

Center Signal  
Rear Signal

⚠ Parts are safety assurance parts.  
When replacing those parts make  
sure to use the specified one.



\*MARK LIST

|             | J      | C      | B/E/EN | U/A/F/A/S/UT |
|-------------|--------|--------|--------|--------------|
| R955        | NONE   | NONE   | USE    | NONE         |
| R957-958    | NONE   | NONE   | USE    | NONE         |
| C951        | NONE   | NONE   | USE    | NONE         |
| C953-954    | NONE   | NONE   | USE    | NONE         |
| C955        | NONE   | NONE   | USE    | NONE         |
| C956        | NONE   | NONE   | USE    | NONE         |
| C957-958    | NONE   | NONE   | USE    | NONE         |
| C959-960    | NONE   | NONE   | USE    | NONE         |
| C1761       | SHORT  | 0.047M | 0.047M | 0.047M       |
| C1762       | 0.022M | 0.047M | 0.047M | 0.047M       |
| C1861       | SHORT  | 0.047M | 0.047M | 0.047M       |
| C1862       | SHORT  | 0.047M | 0.047M | 0.047M       |
| C1863       | 0.022M | 0.047M | 0.047M | 0.047M       |
| C1864       | 0.022M | 0.047M | 0.047M | 0.047M       |
| B111        | USE    | NONE   | NONE   | NONE         |
| B118        | USE    | NONE   | NONE   | NONE         |
| B122        | USE    | NONE   | NONE   | NONE         |
| C1741-1742  | 47/100 | 47/100 | 47/63  | 47/63        |
| C184-L-1842 | 47/100 | 47/100 | 47/63  | 47/63        |

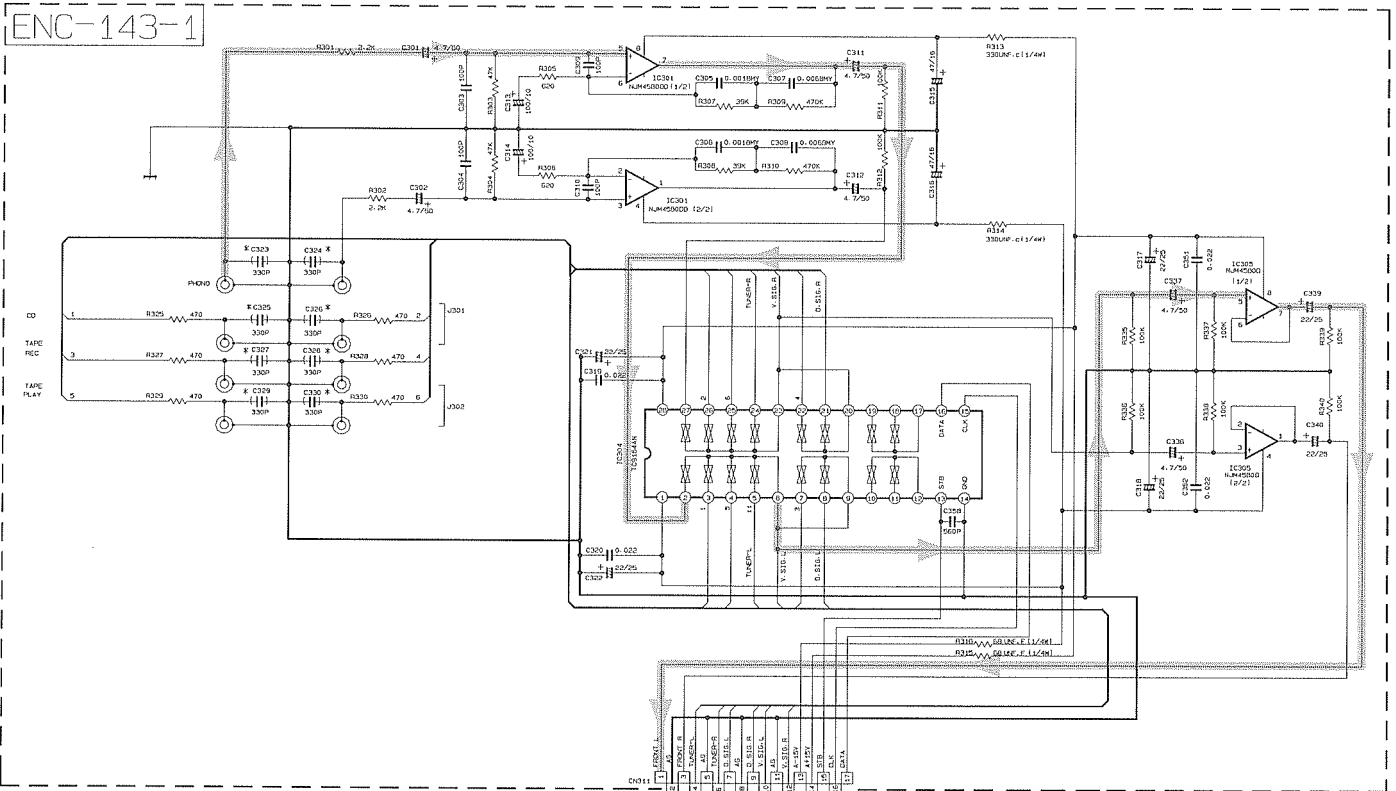
|            | J     | C     | B/E/EN | U/A/F/A/S/UT |
|------------|-------|-------|--------|--------------|
| R1711      | G20   | G20   | 910    | 910          |
| R1817      | G20   | G20   | 910    | 910          |
| R1818      | G20   | G20   | 910    | 910          |
| R1771-1772 | 150   | 150   | 200    | 200          |
| R1773-1774 | 150   | 150   | 200    | 200          |
| R1071-1073 | 150   | 150   | 300    | 300          |
| R1872-1874 | 150   | 150   | 300    | 300          |
| R1875-1877 | 150   | 150   | 200    | 200          |
| R1878-1879 | 150   | 150   | 200    | 200          |
| B1742      | 220   | 220   | 330    | 330          |
| R1842      | 220   | 220   | 330    | 330          |
| C1714      | USE   | USE   | USE    | USE          |
| C1800      | USE   | USE   | USE    | USE          |
| L1863-1864 | SHORT | SHORT | USE    | SHORT        |
| L1762      | SHORT | SHORT | USE    | SHORT        |
| C969       | NONE  | NONE  | USE    | NONE         |
| C969       | NONE  | NONE  | USE    | NONE         |
| C970       | NONE  | NONE  | USE    | NONE         |
| C1782      | 100P  | 100P  | 47P    | 100P         |
| C1803-1804 | 100P  | 100P  | 270P   | 100P         |

END-108-8

5T051

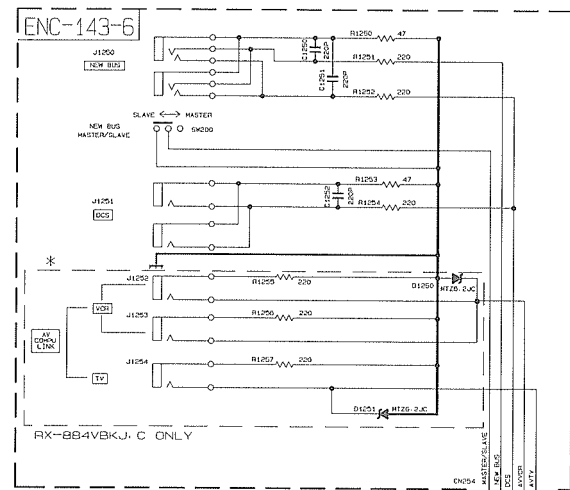
# AUDIO SELECTOR SECTION

5



TO CN001  
OF ENC-316-1

2



RX-884VBKJ, C ONLY

TO CN005  
OF ENC-316-1

\* MARK LIST

|  |           |
|--|-----------|
|  | RX-884RBK |
|  | B. E. EN  |
|  | USED      |
|  | USED      |

RX-884VE

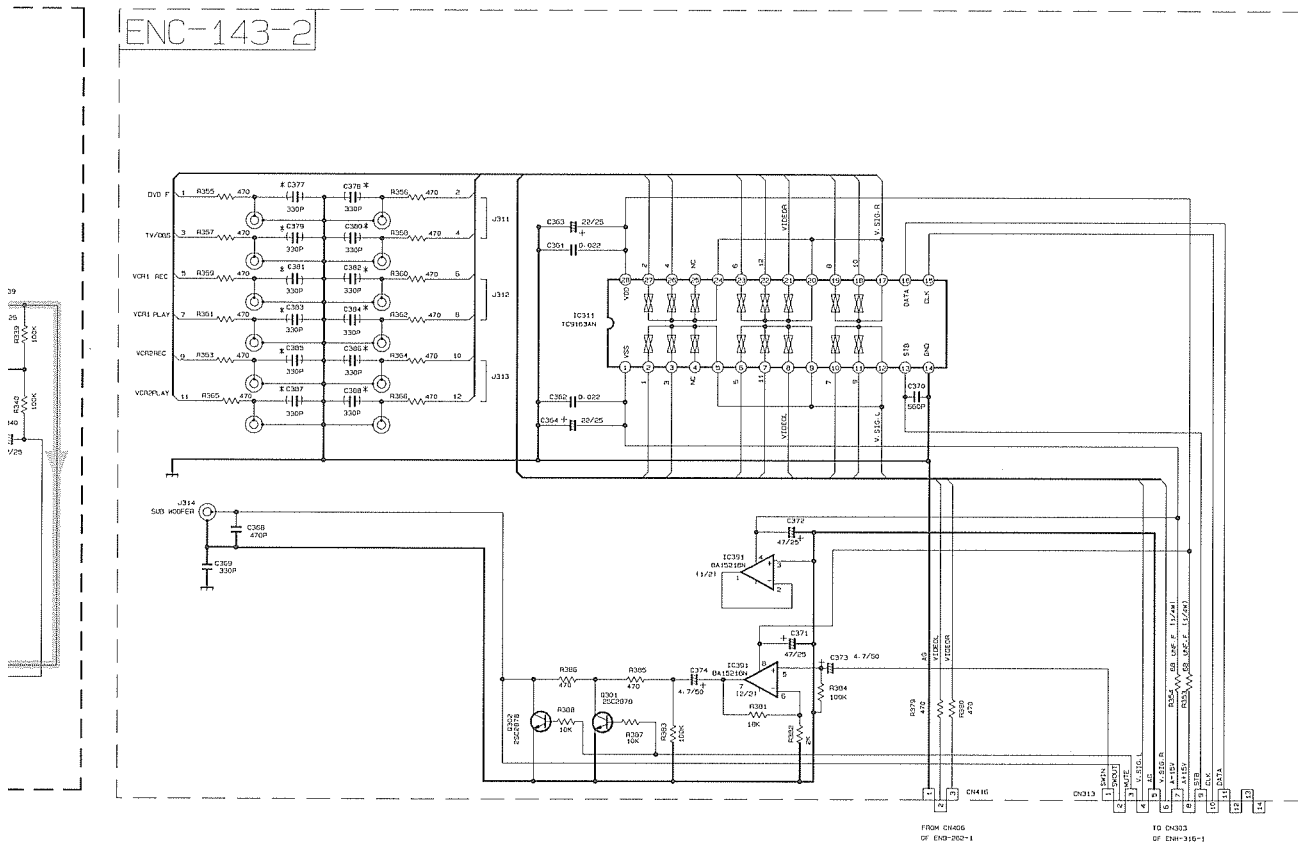
1

A

B

C

D



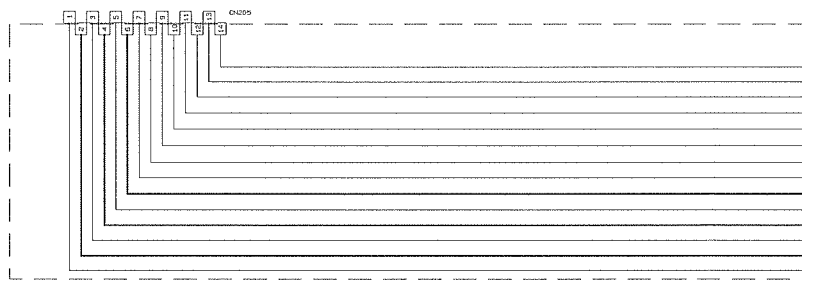
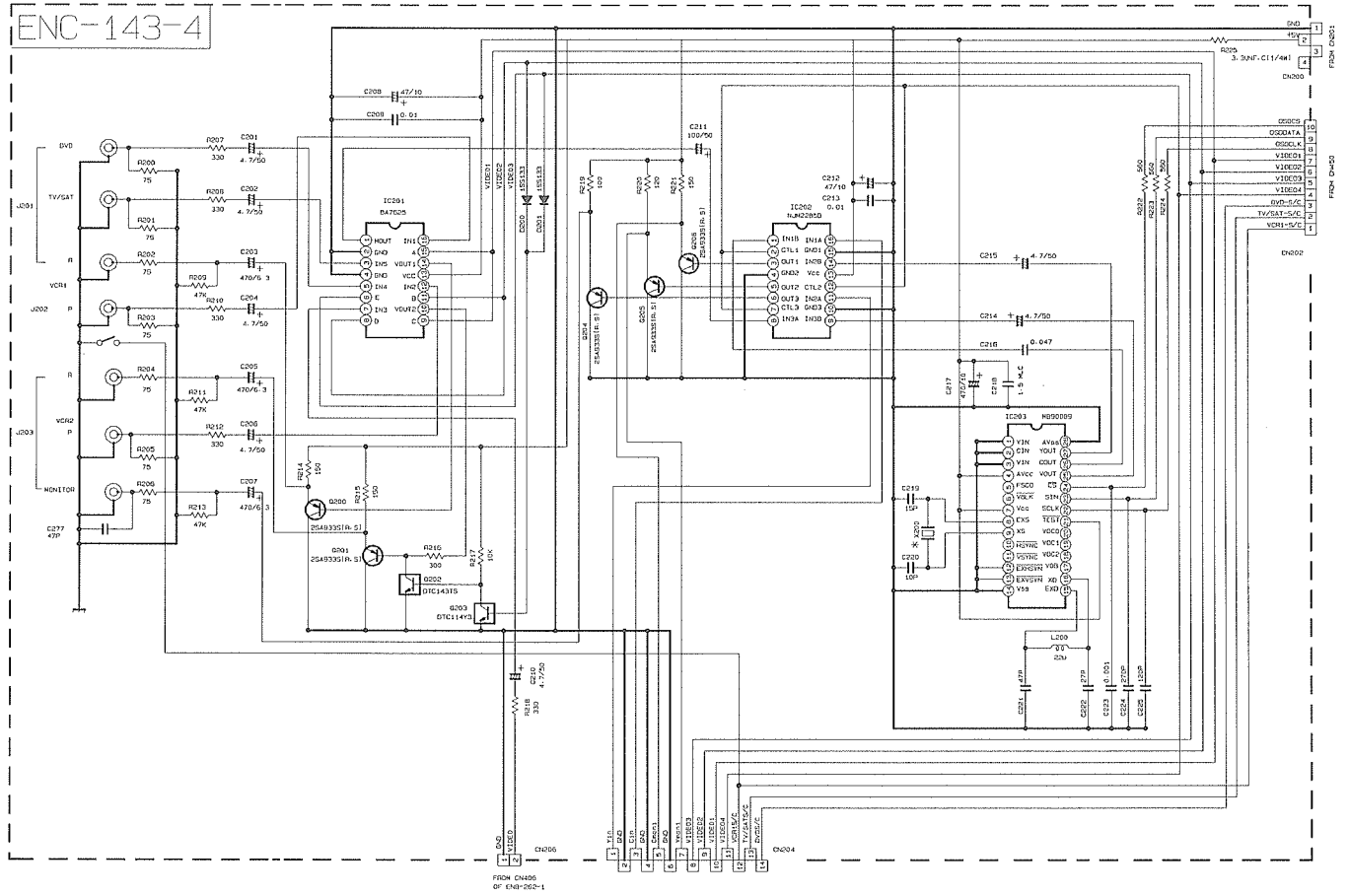
T

|          |             |                |           |
|----------|-------------|----------------|-----------|
| X-884RBK | RX-884VBK   | RX-884PBK      | RX-884PGD |
| B. E. EN | J. C. U. UT | U. U.F. US. UT | UF        |
| USED     | NONE        | NONE           | NONE      |
| USED     | NONE        | NONE           | NONE      |

X-884VBKJ. C ONLY

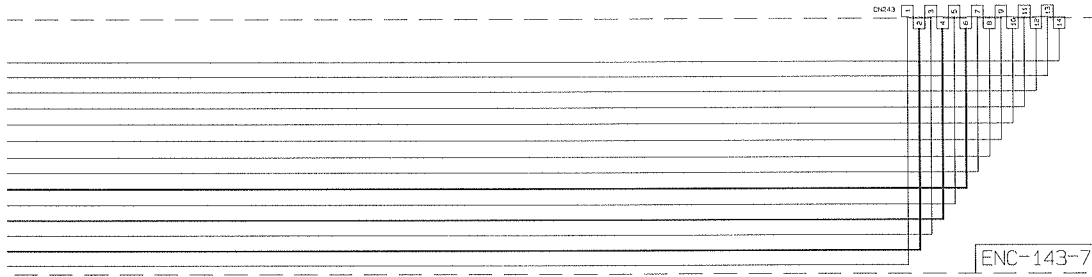
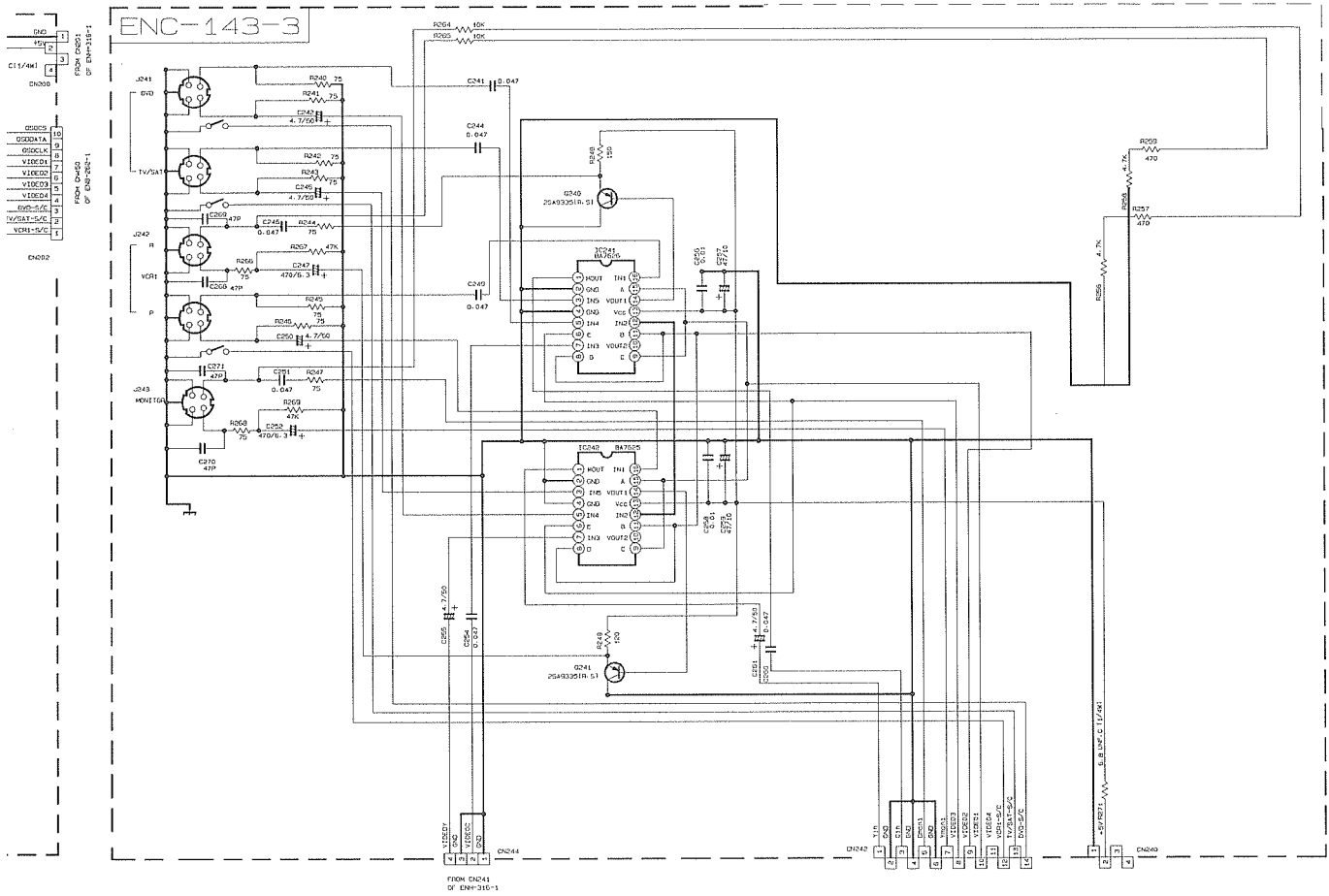
Main Signal

VIDEO SECTION



\*MARK LIST

|      |             |
|------|-------------|
|      | RX-884VBK   |
|      | J. C. U. UT |
| X200 | 0AX0260-00  |



|         |              |               |              |
|---------|--------------|---------------|--------------|
| 184VBK  | RX-884RBK    | RX-884PGD     | RX-884PBK    |
| U. UT   | B. E. EN     | U. UF. US. UT | UF           |
| 60-001Z | QAX0261-001Z | QAX0261-001Z  | QAX0261-001Z |

D

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G

H

# VOLUME CONTROL SECTION

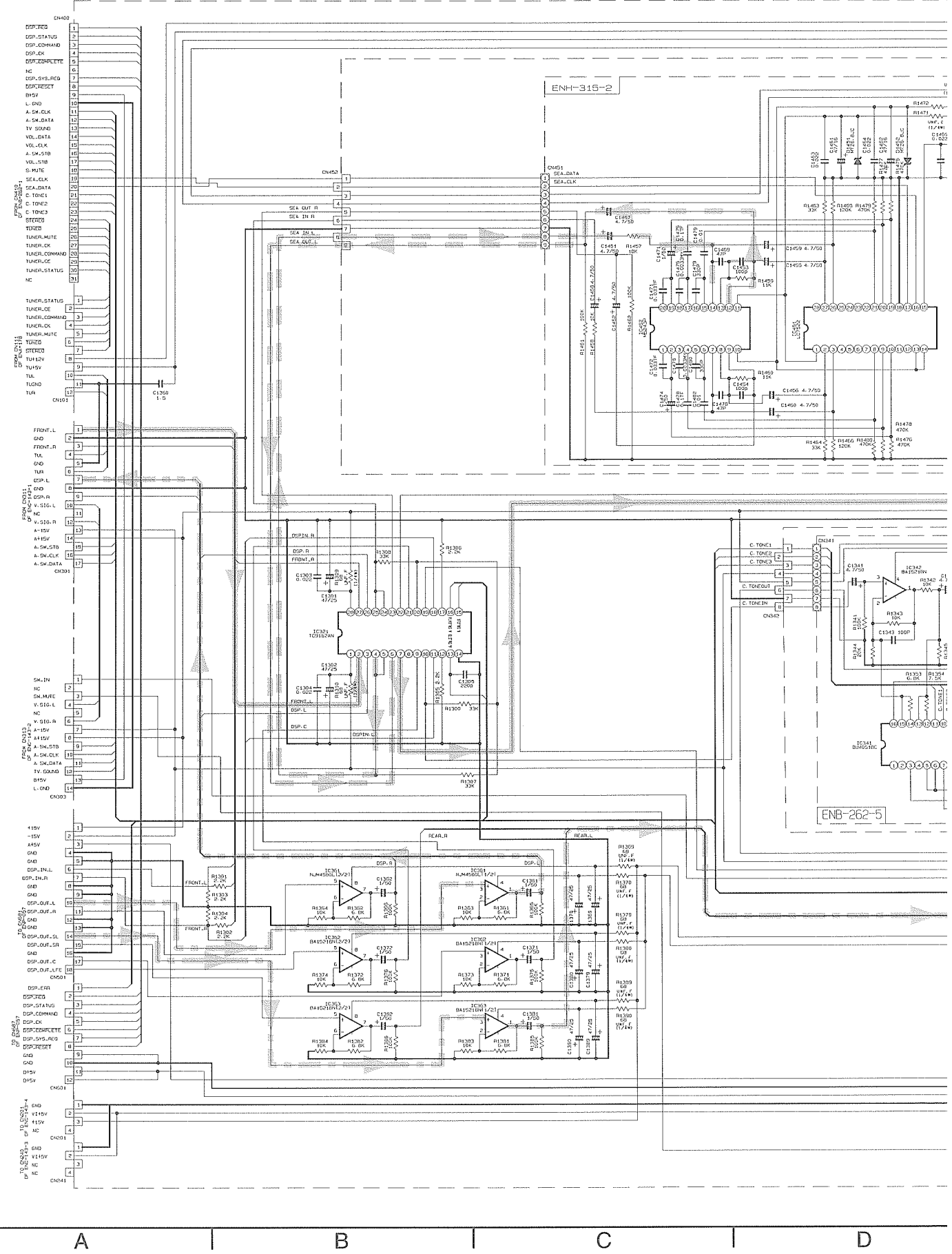
5

4

3

2

1



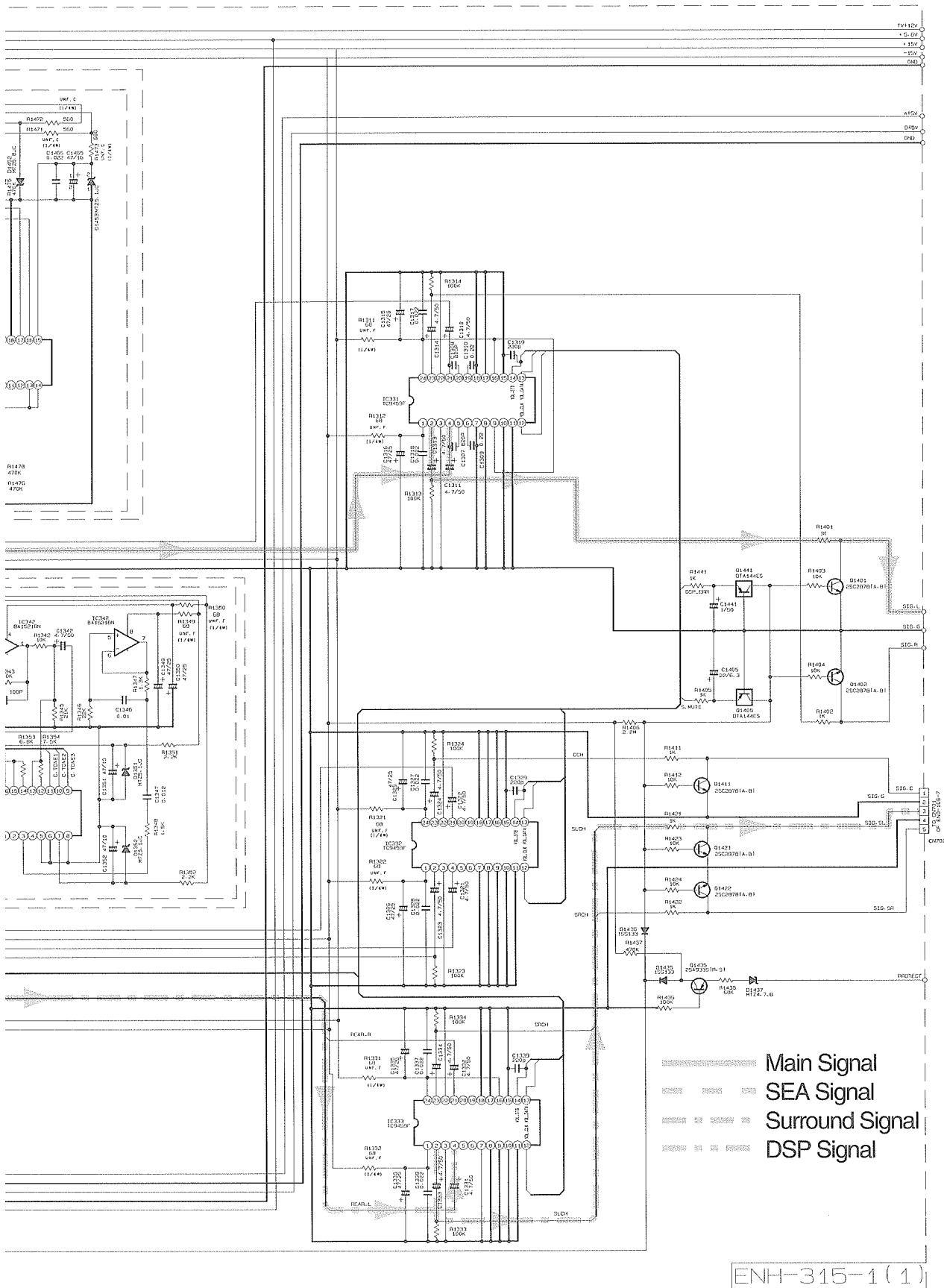
A

B

C

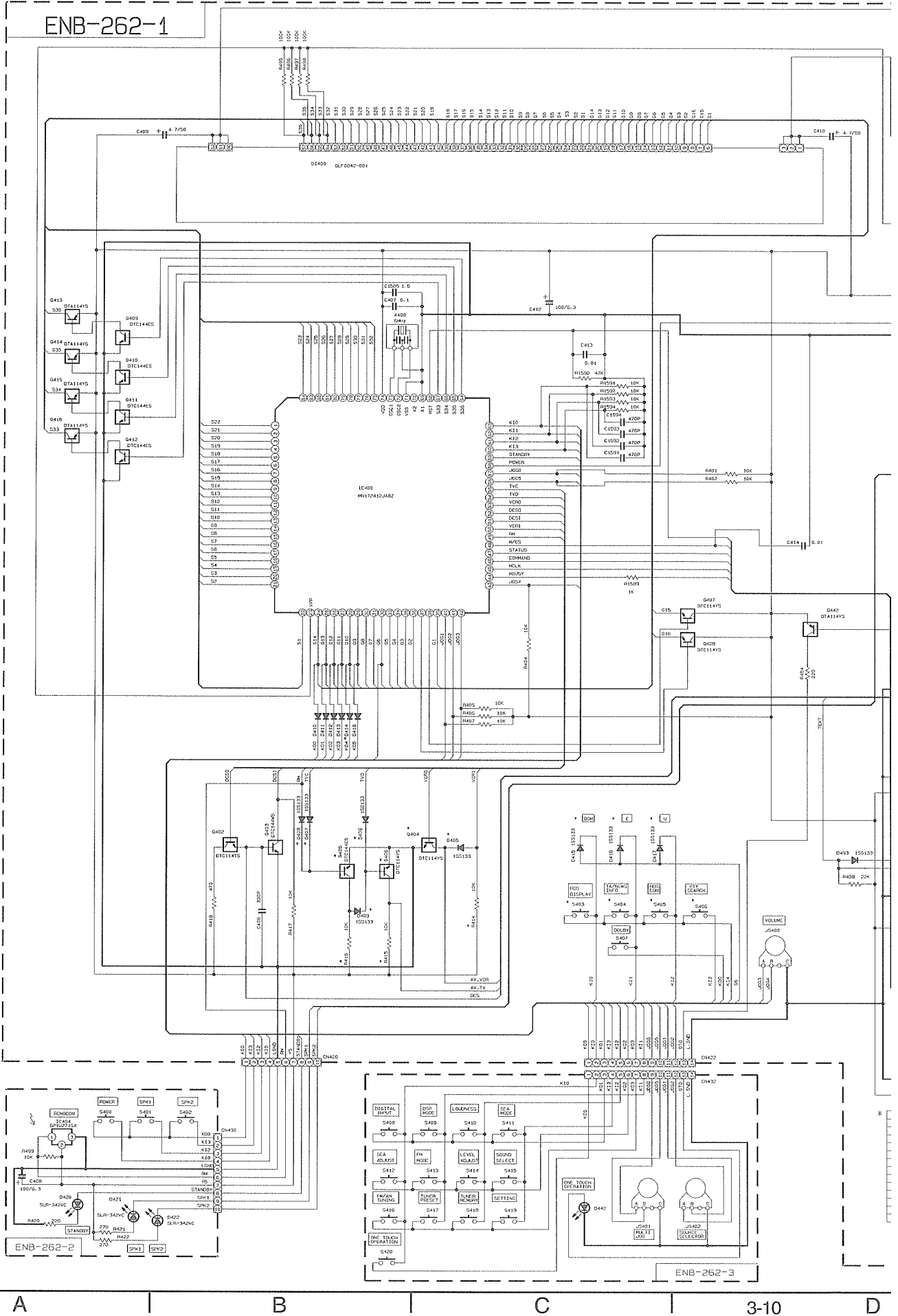
D

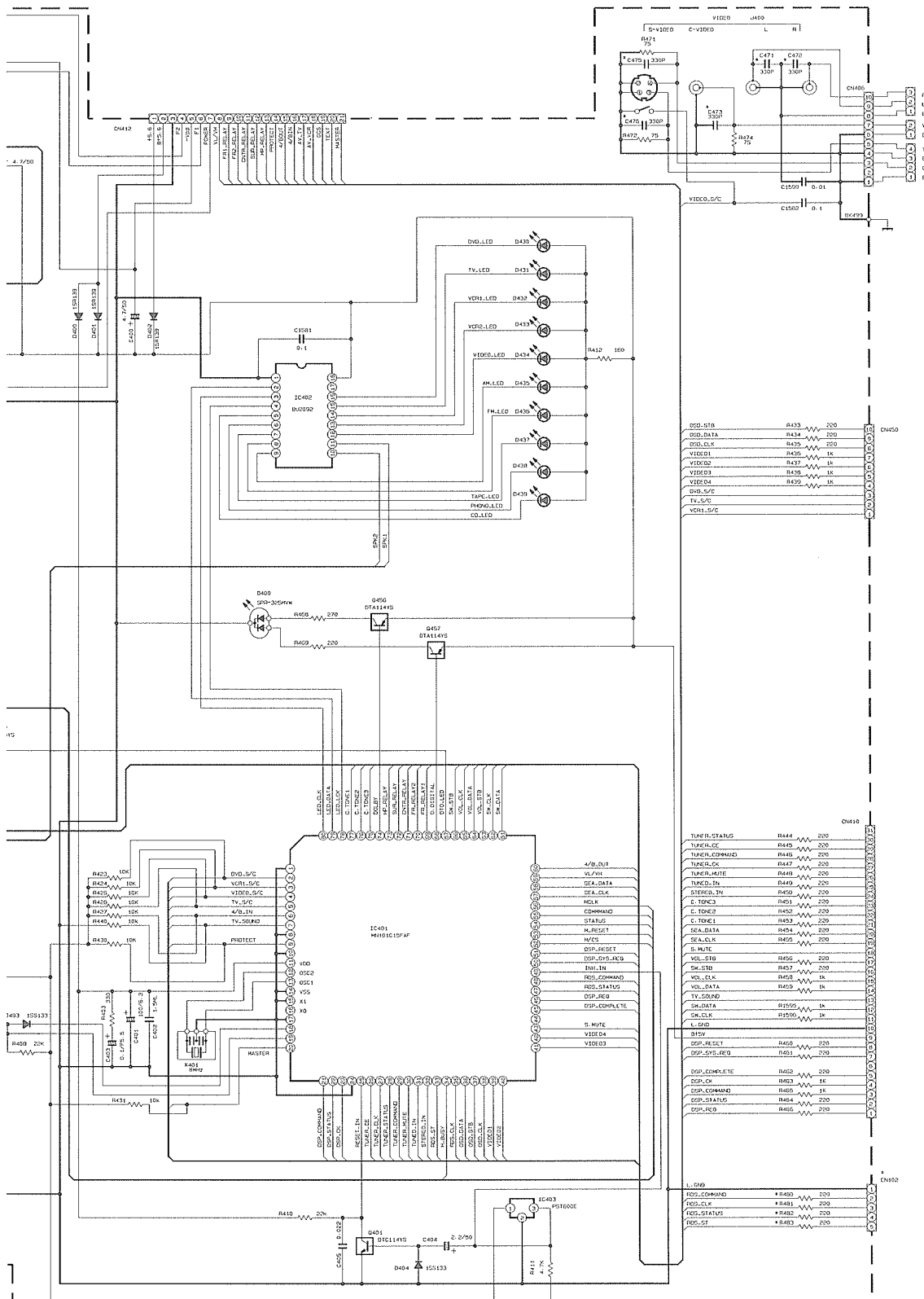




ENH-315-1(1)

FL DISPLAY SECTION





| VER.    | COM. | ΔC  | E-EN-B | LS-UT | VER. LS-UT |
|---------|------|-----|--------|-------|------------|
| E1103   | NO   | NO  | YES    | NO    | NO         |
| F1103-3 | NO   | NO  | YES    | NO    | NO         |
| D414    | NO   | NO  | YES    | NO    | NO         |
| D415    | NO   | NO  | YES    | NO    | NO         |
| D416    | YES  | NO  | NO     | YES   | YES        |
| D417    | NO   | NO  | NO     | YES   | NO         |
| D403-0  | NO   | NO  | YES    | NO    | NO         |
| D404-0  | YES  | YES | NO     | NO    | NO         |
| D405-0  | YES  | YES | NO     | NO    | NO         |
| D414-0  | YES  | YES | NO     | NO    | NO         |
| C471-2  | NO   | NO  | YES    | NO    | NO         |
| C473    | NO   | NO  | YES    | NO    | NO         |
| C475-16 | NO   | NO  | YES    | NO    | NO         |

# DSP SECTION

5

4

3

2

1

A

B

C

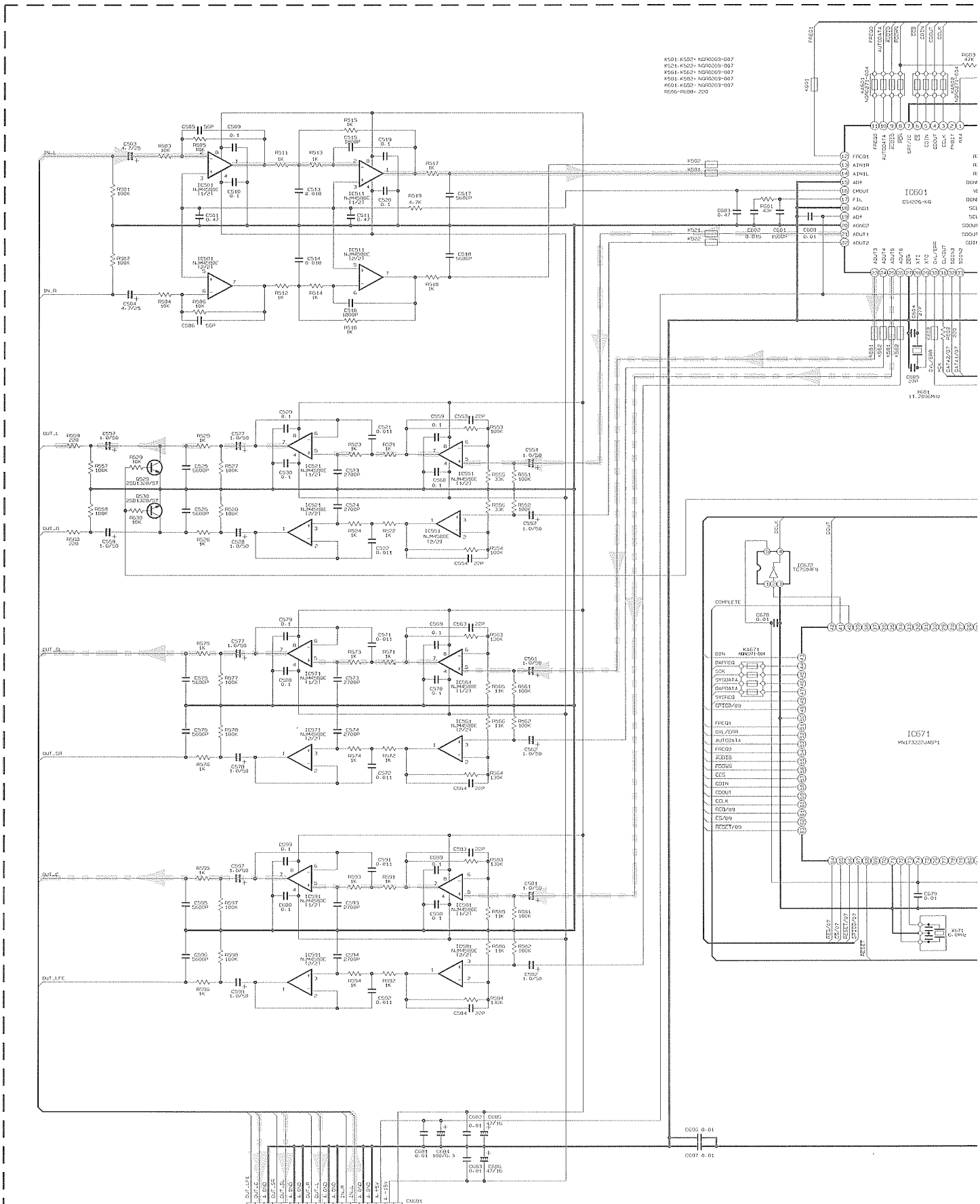
D

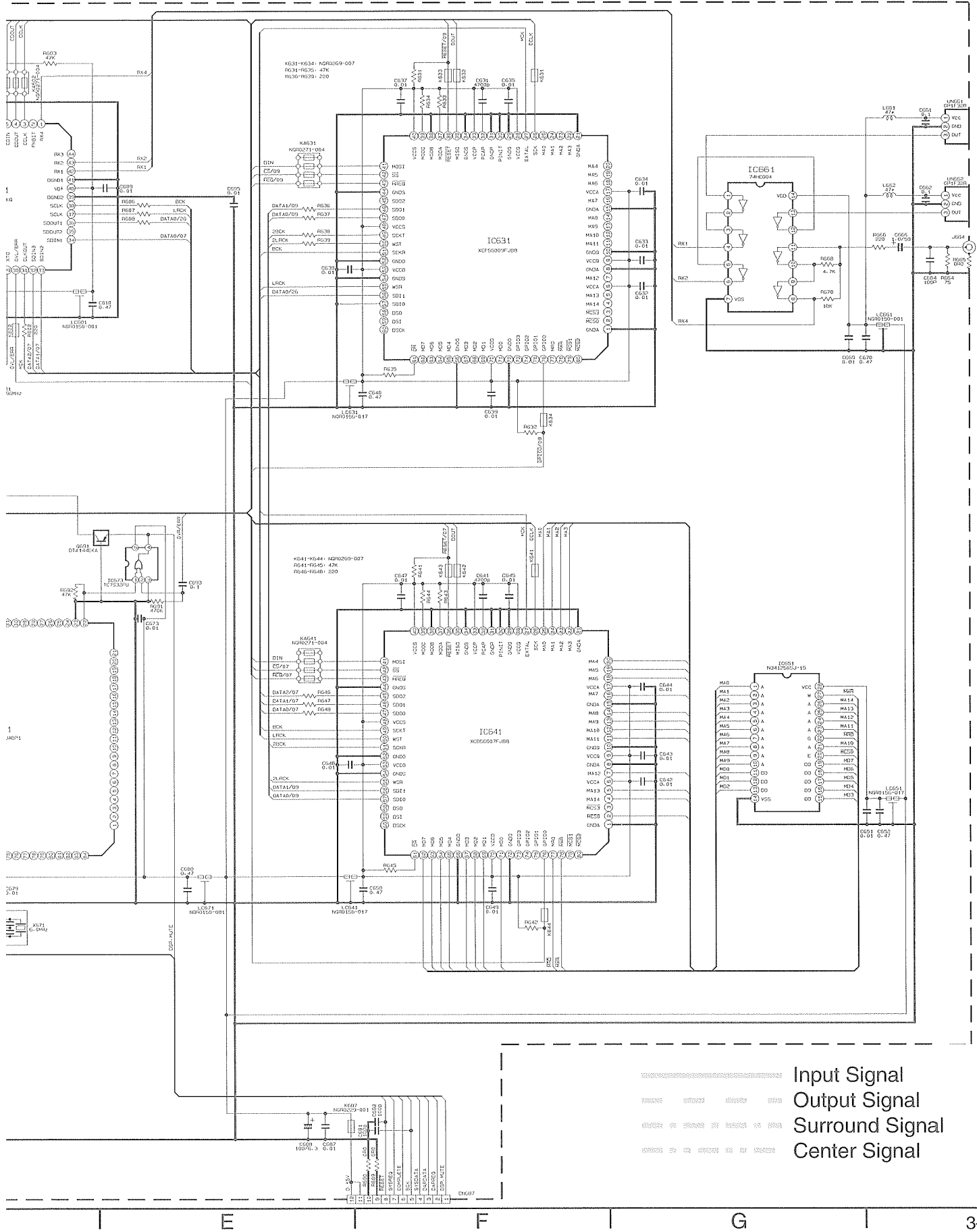
R501, R520 \* N96009-007  
 R521, R522 \* N96009-007  
 R561, R562 \* N96009-007  
 R581, R582 \* N96009-007  
 R591, R592 \* N96009-007  
 R595, R596 \* 203

IC601  
 CS4226-KQ

IC61  
 11-2058312

IC671  
 PH17320JAMP1

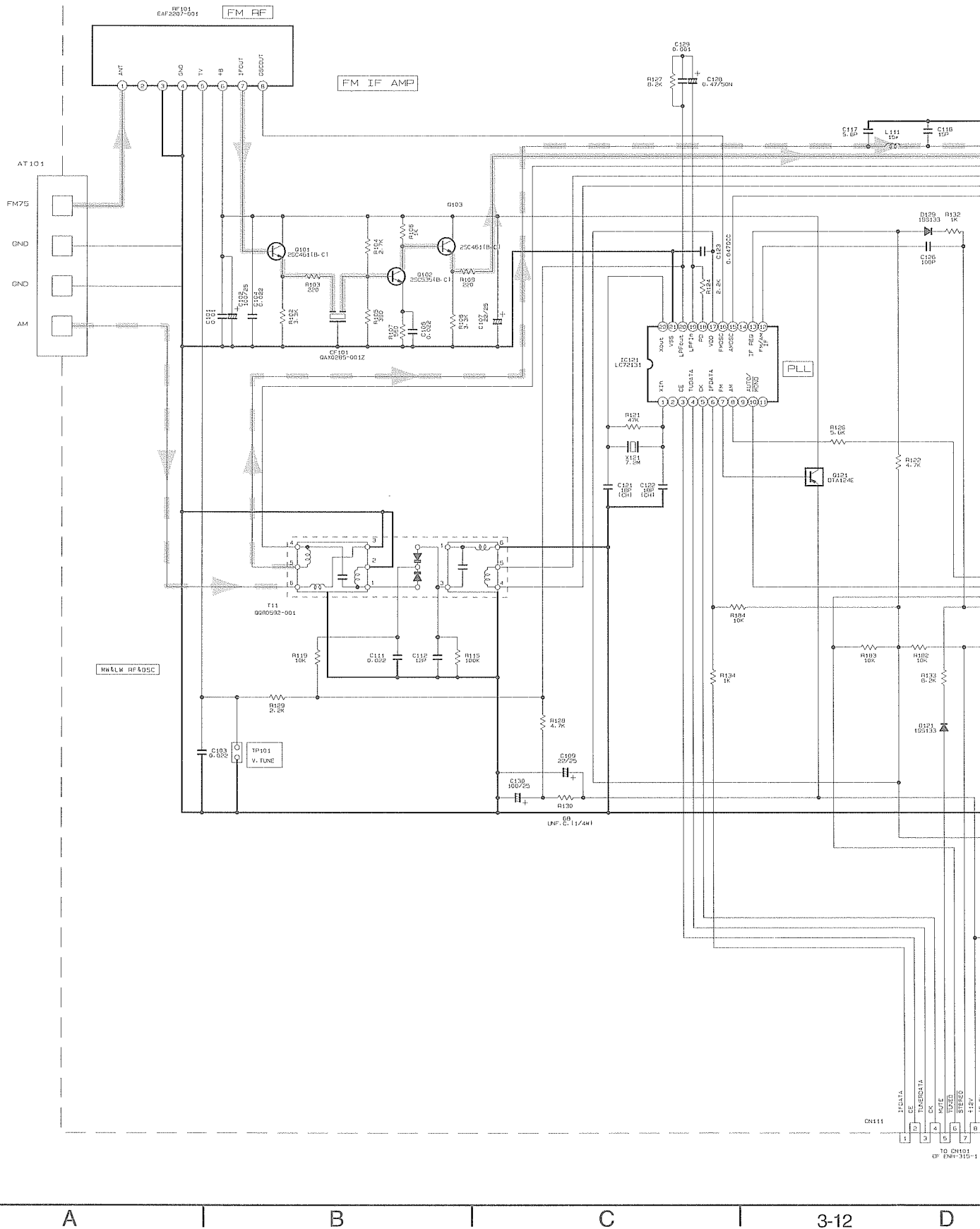




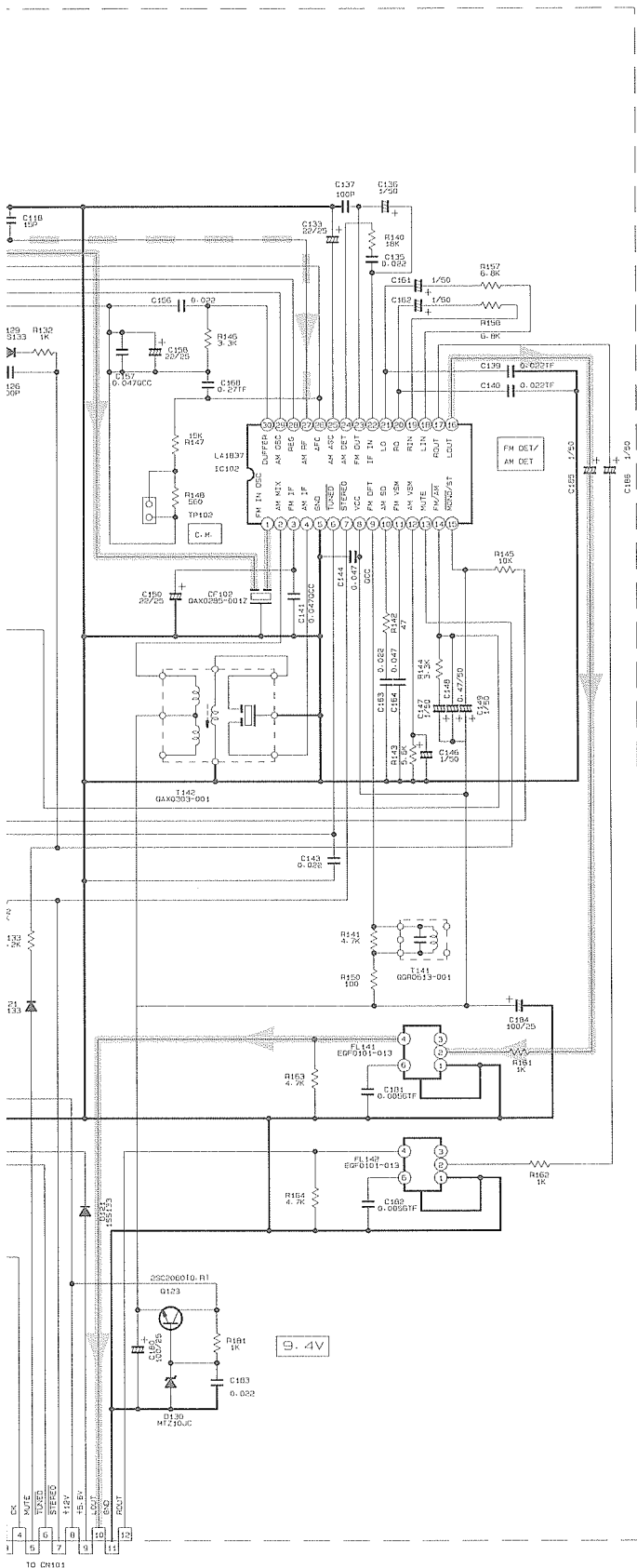
Input Signal  
Output Signal  
Surround Signal  
Center Signal

■ TUNER SECTION

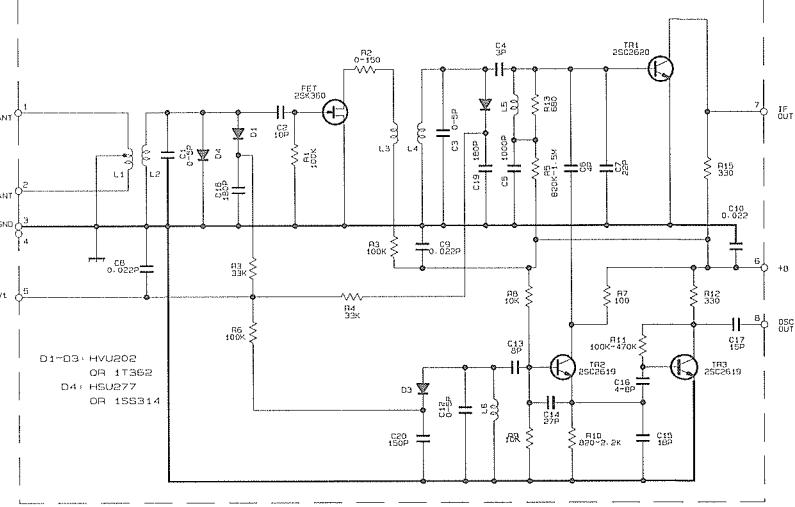
FOR U, UF, UT, US  
ENA-178



| DATA | DATA | NOTE | DATA | DATA |
|------|------|------|------|------|
| 1    | 2    | 3    | 4    | 5    |
| 6    | 7    | 8    | 9    | 10   |



RF 101  
EAF2207-001



FM Signal  
AM Signal

■ Main P.C. Board

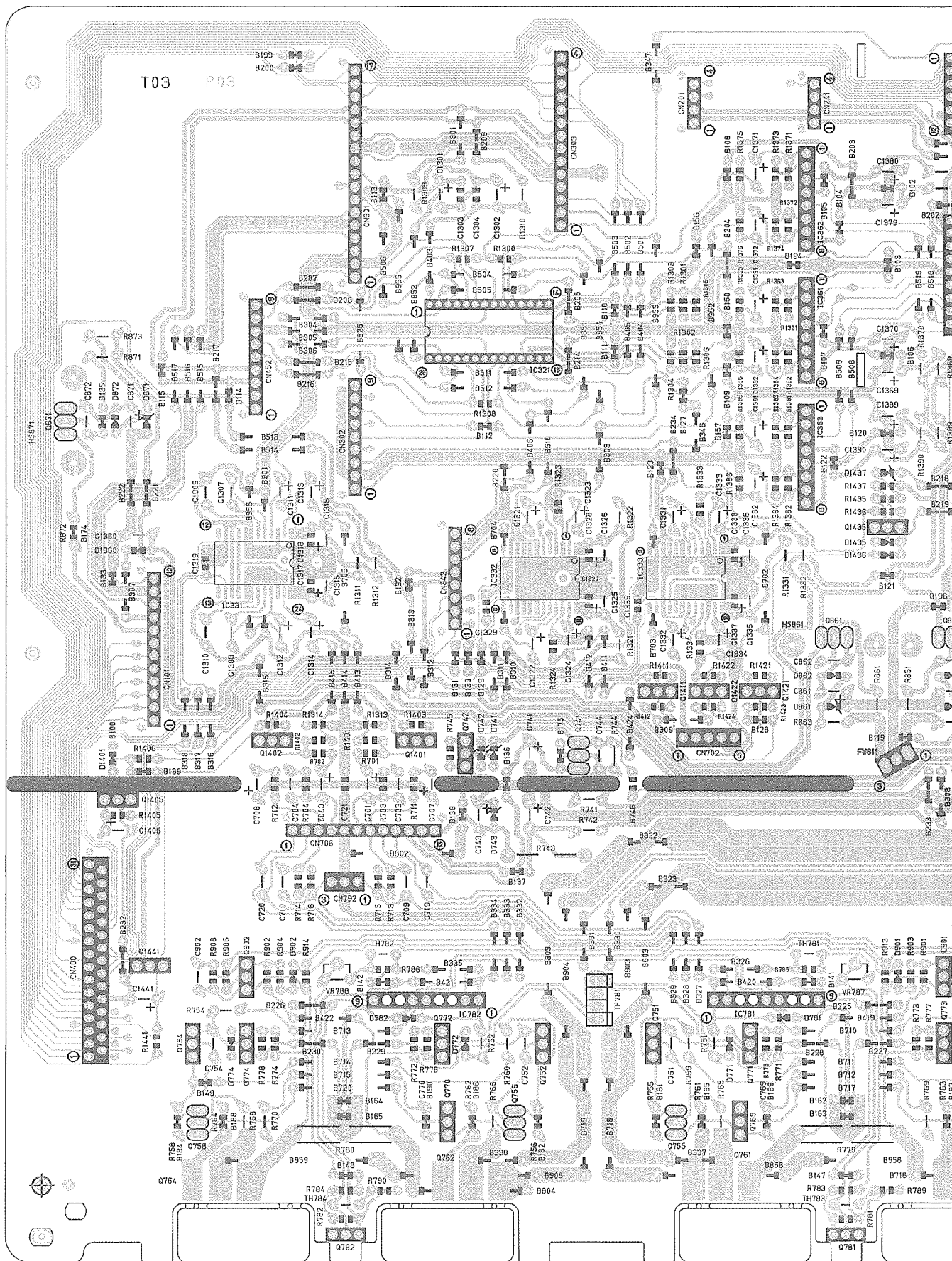
5

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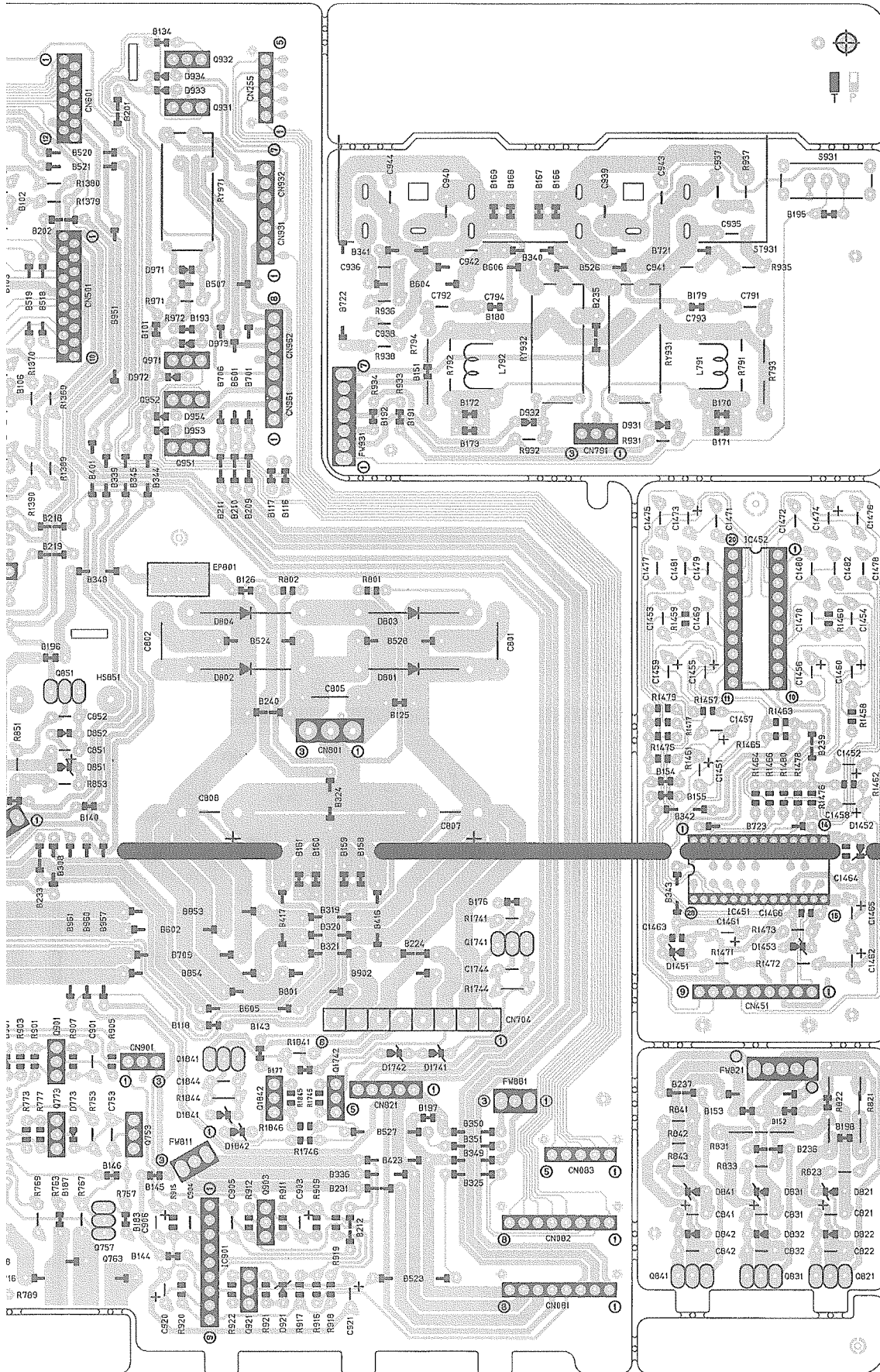
A

B

C

D





E

F

G

■ Front P.C. Board

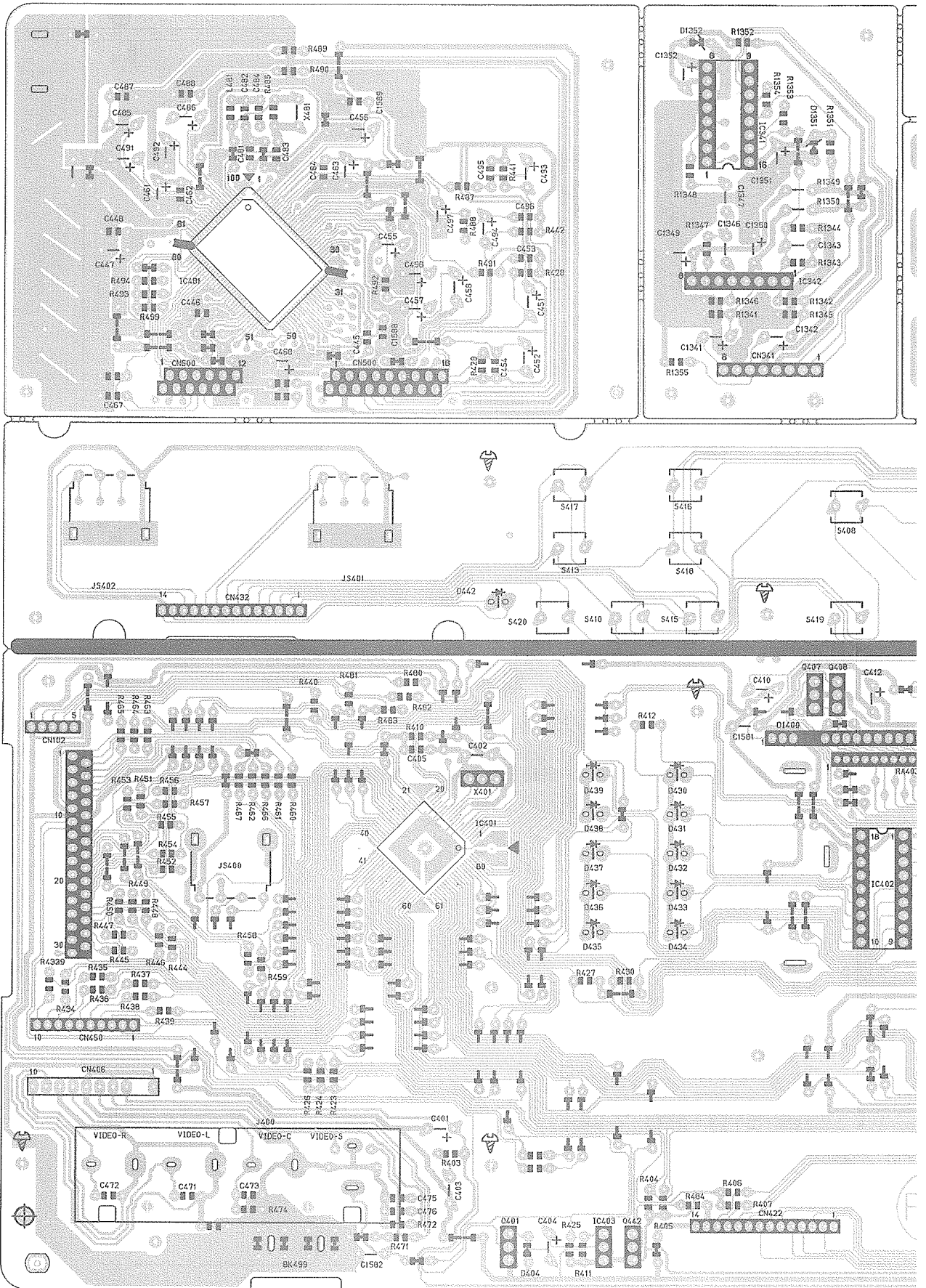
5

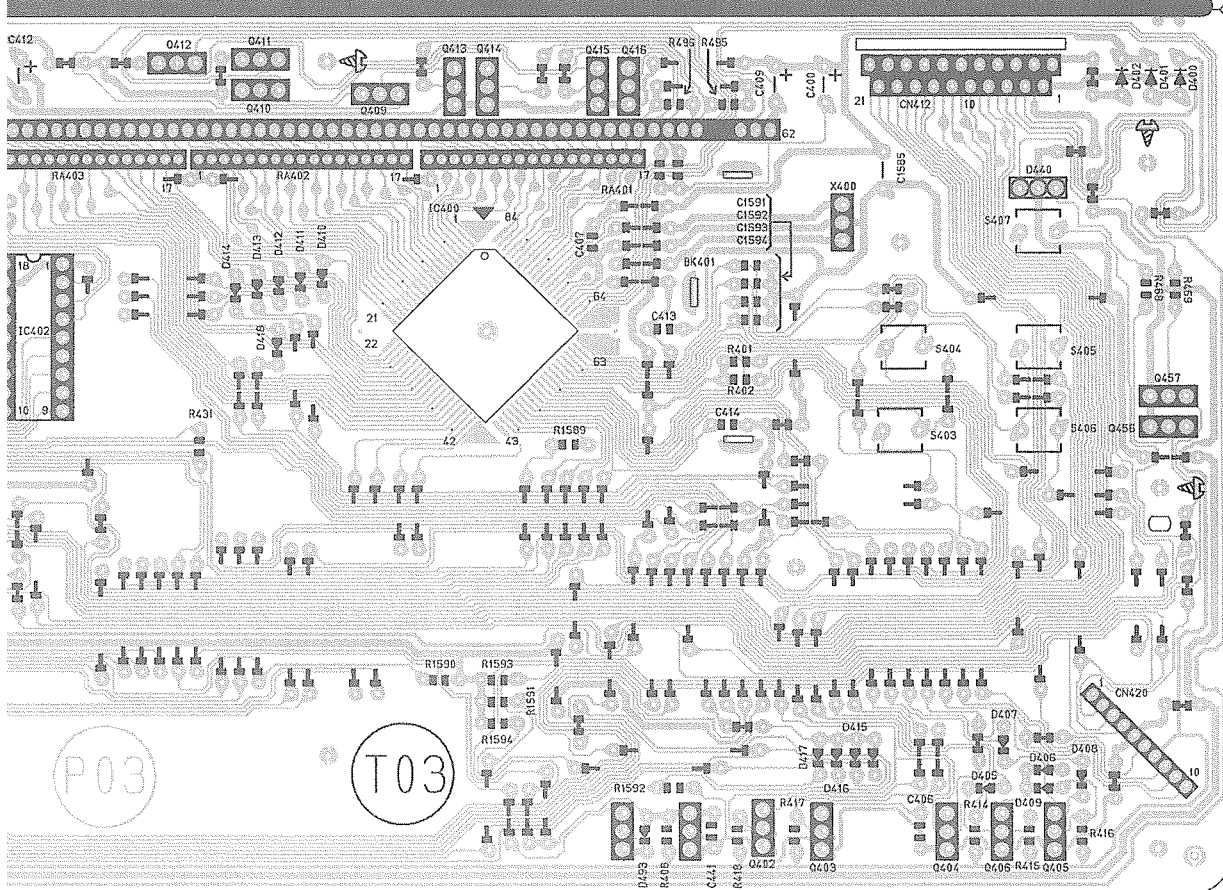
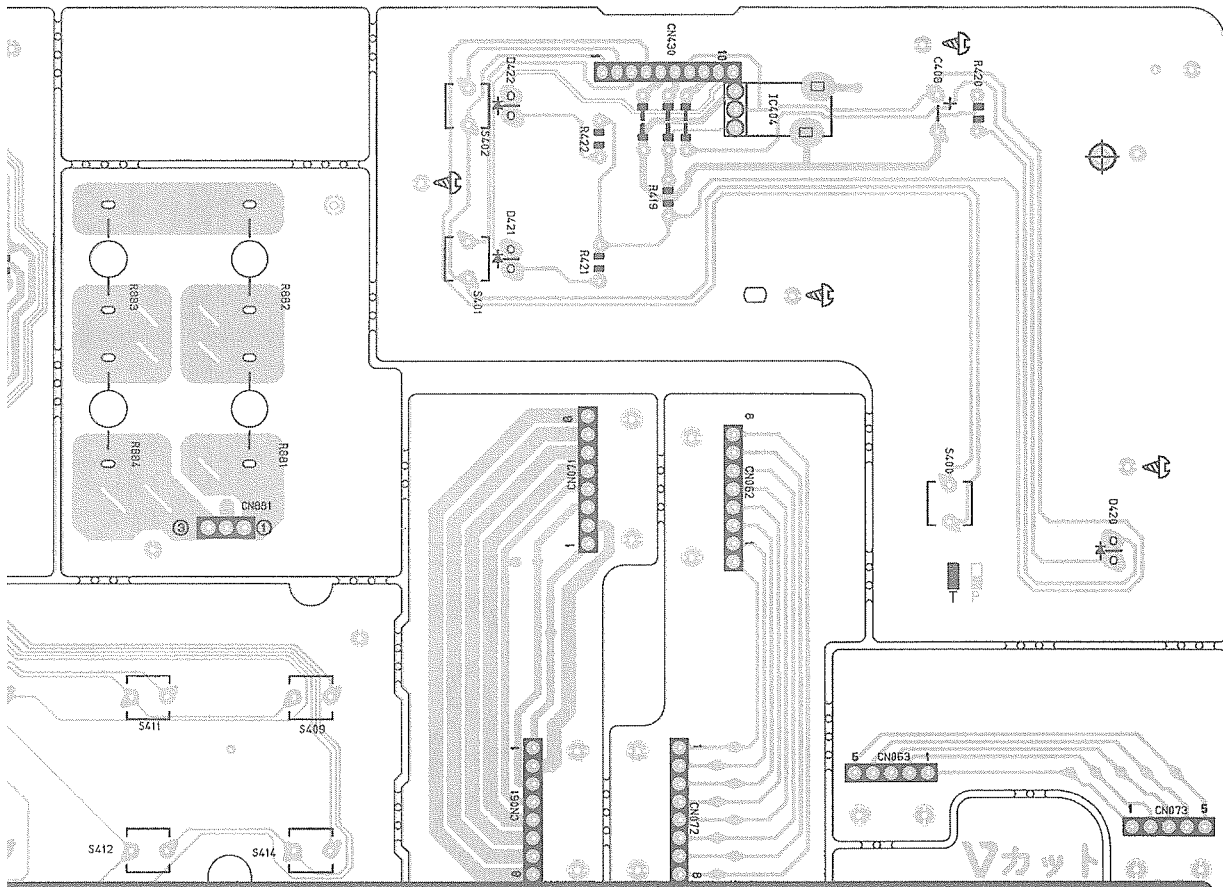
4

3

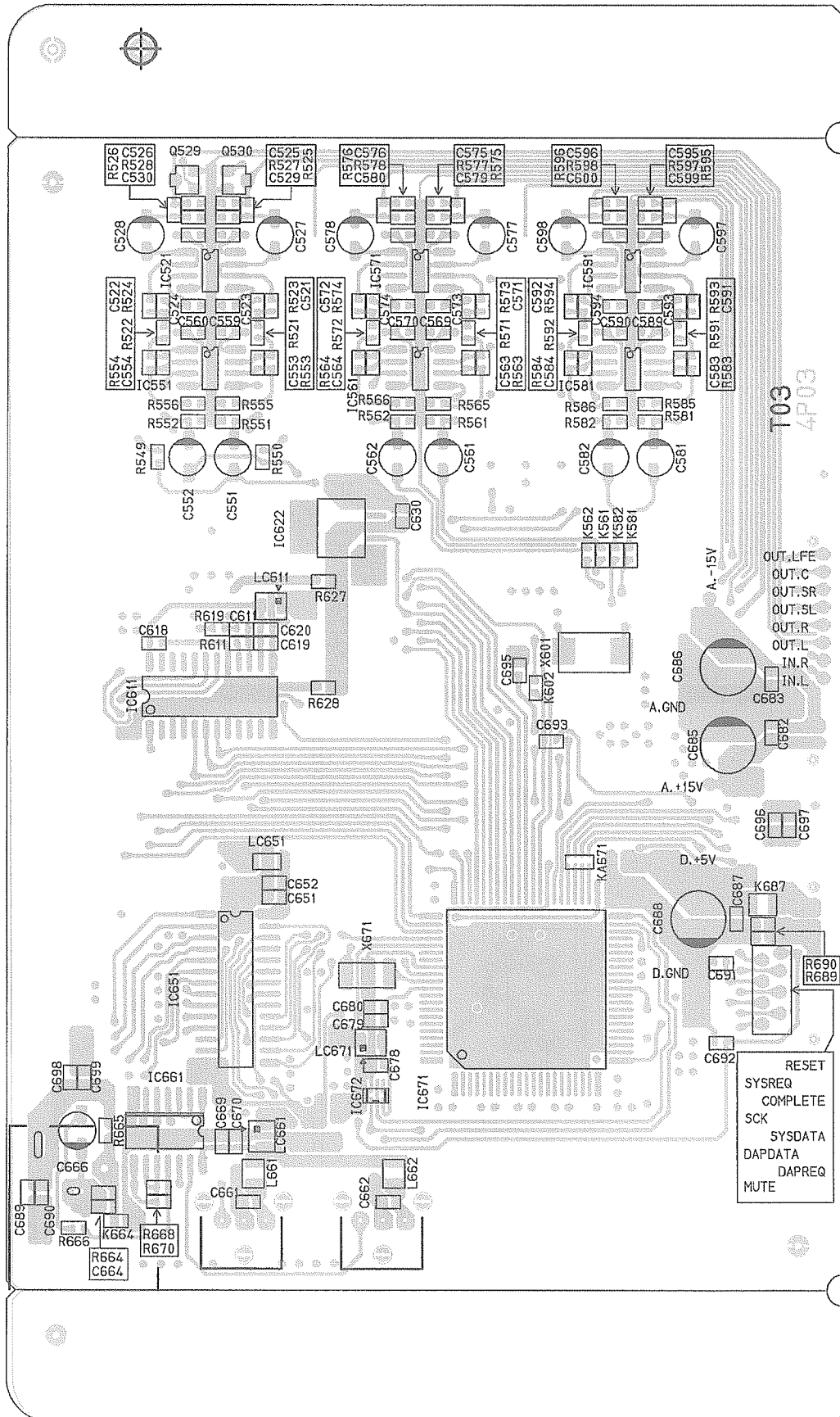
2

1









■ Control P.C. Board

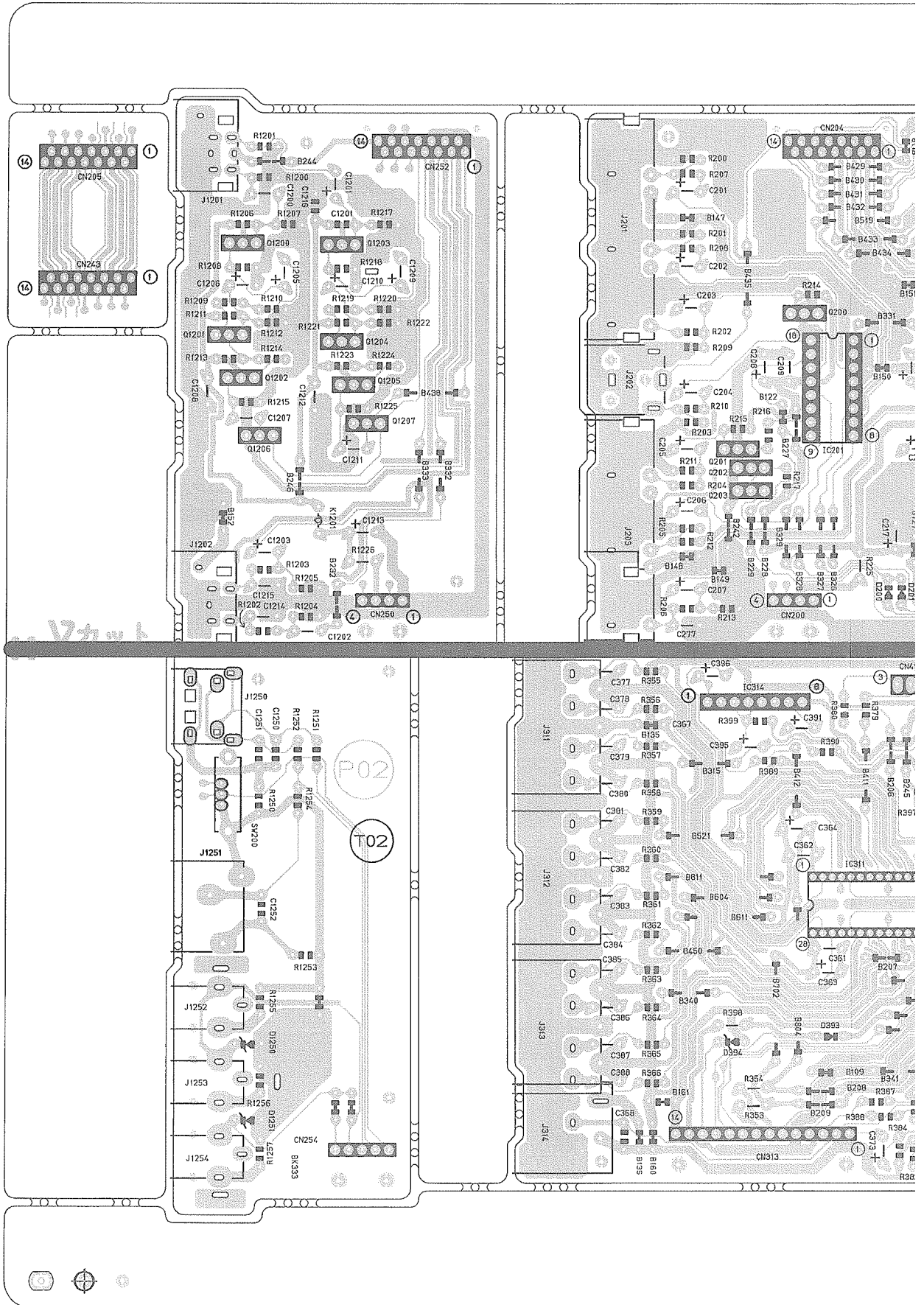
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4

3

2

1



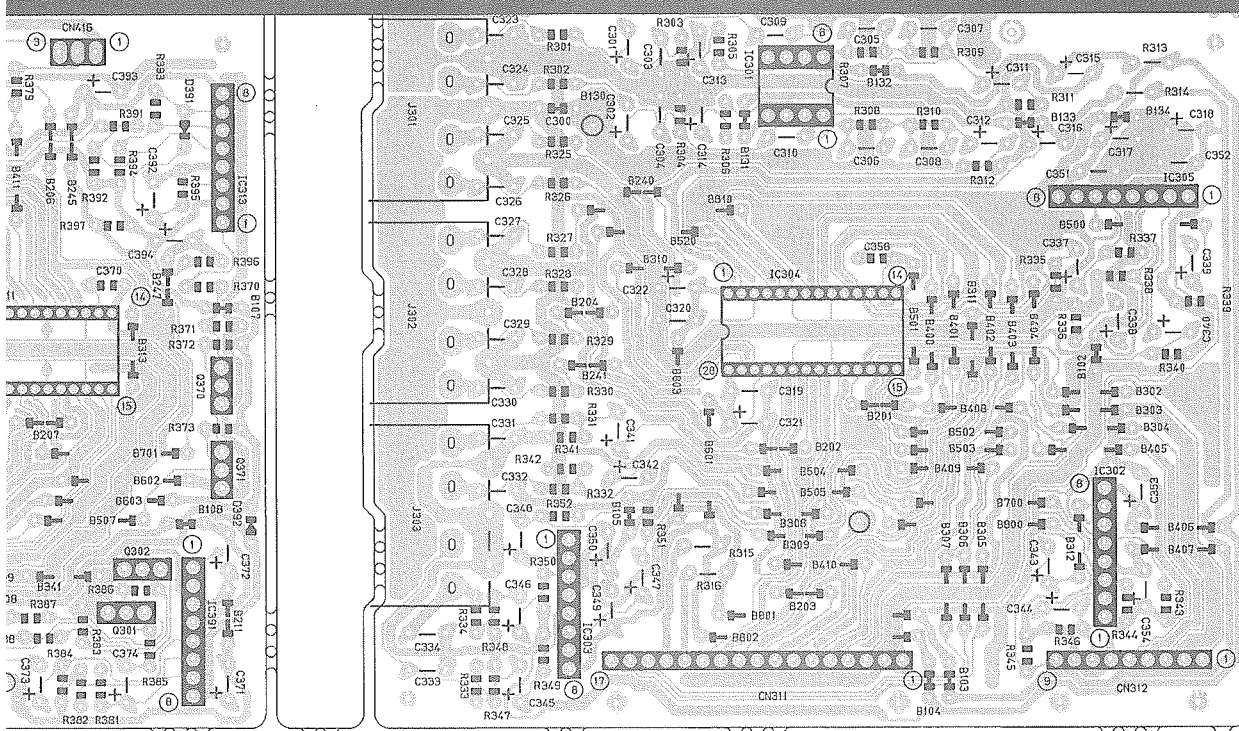
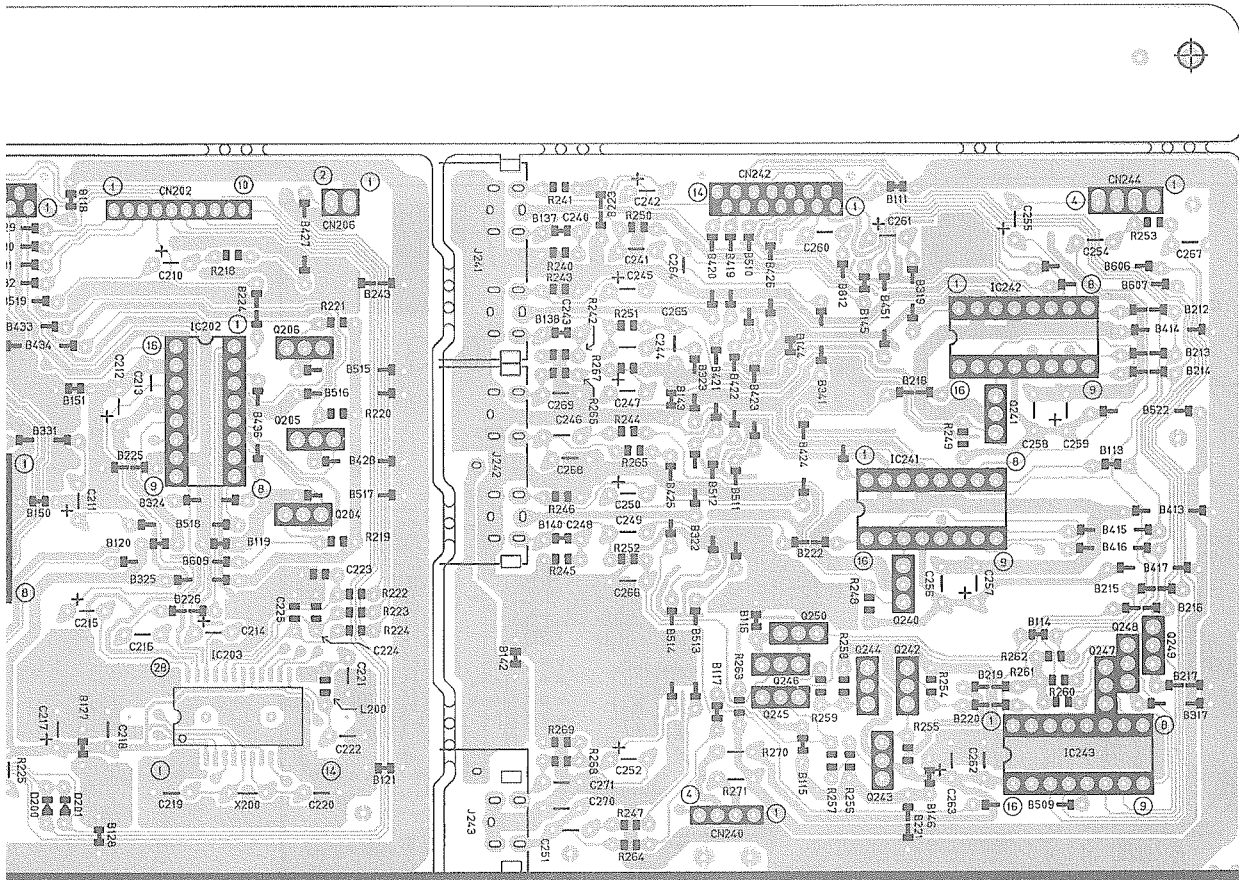
A

B

C

3-16

D



■ AC Supply P.C. Board

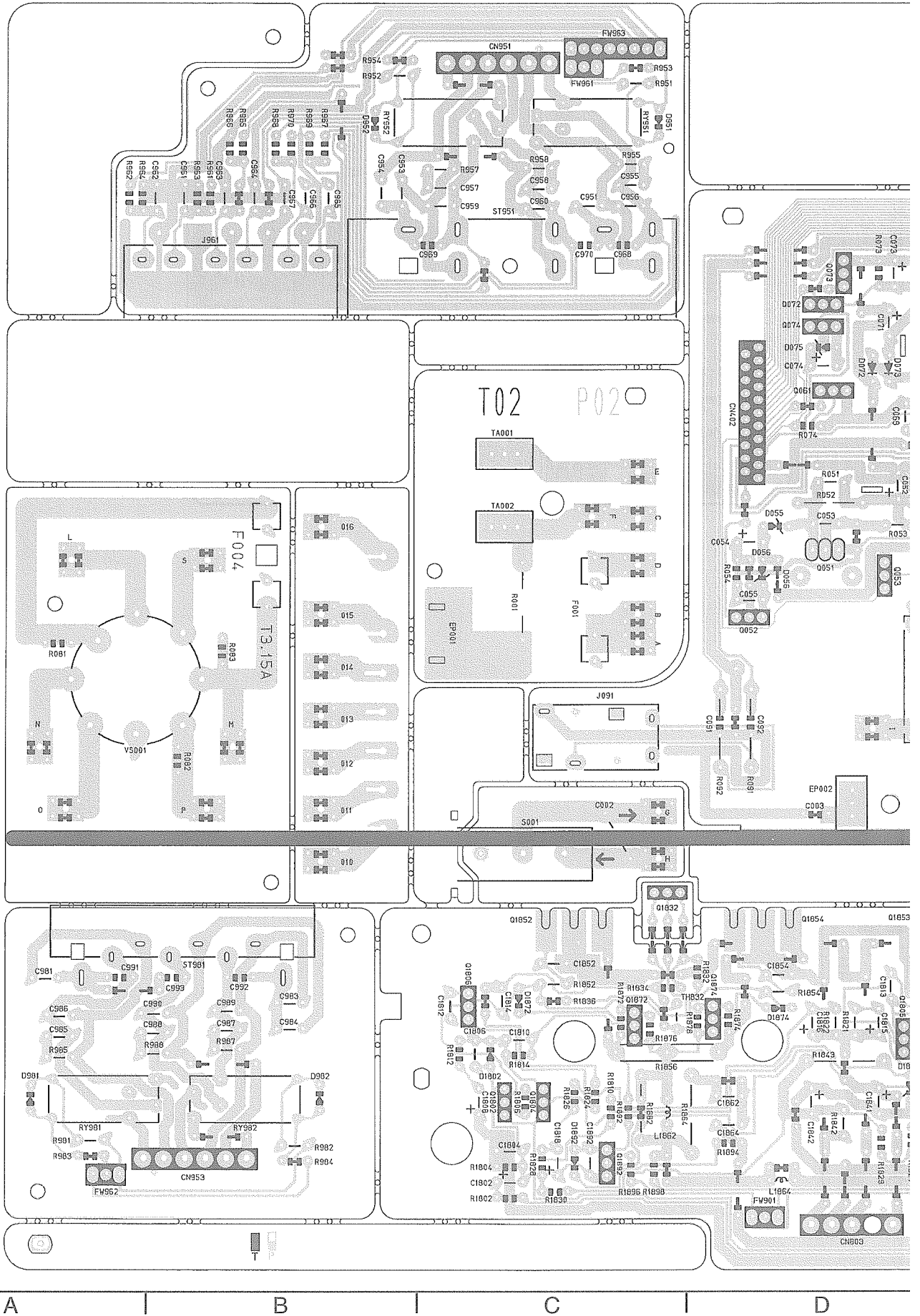
5

4

3

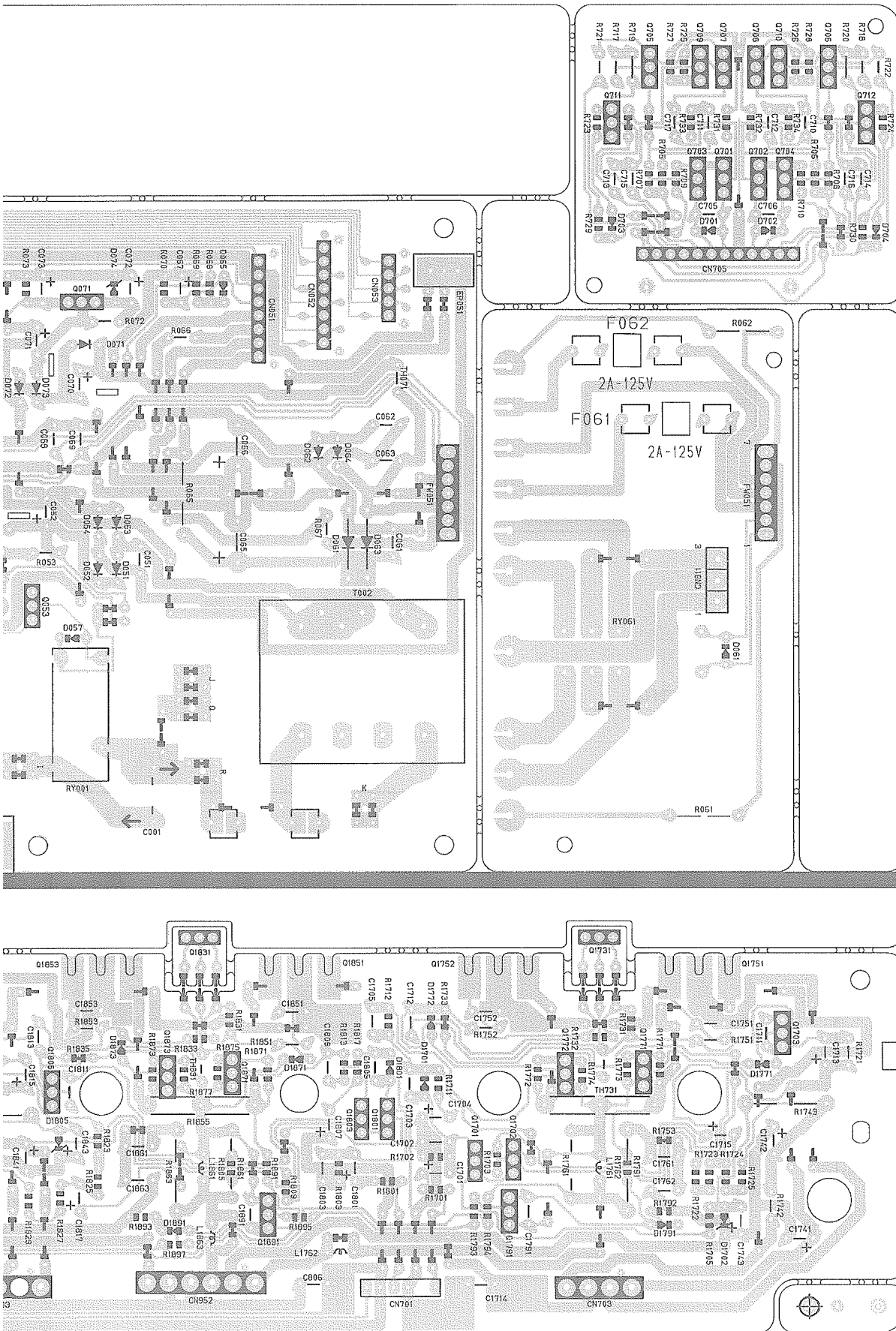
2

1

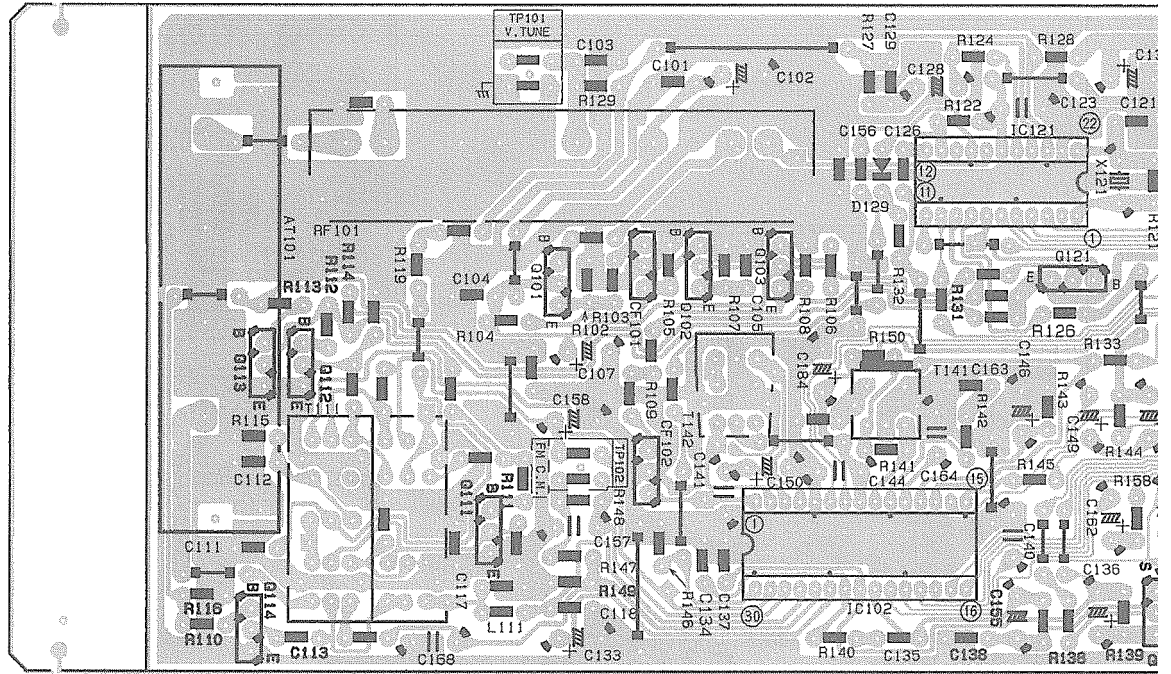


A | B | C | D

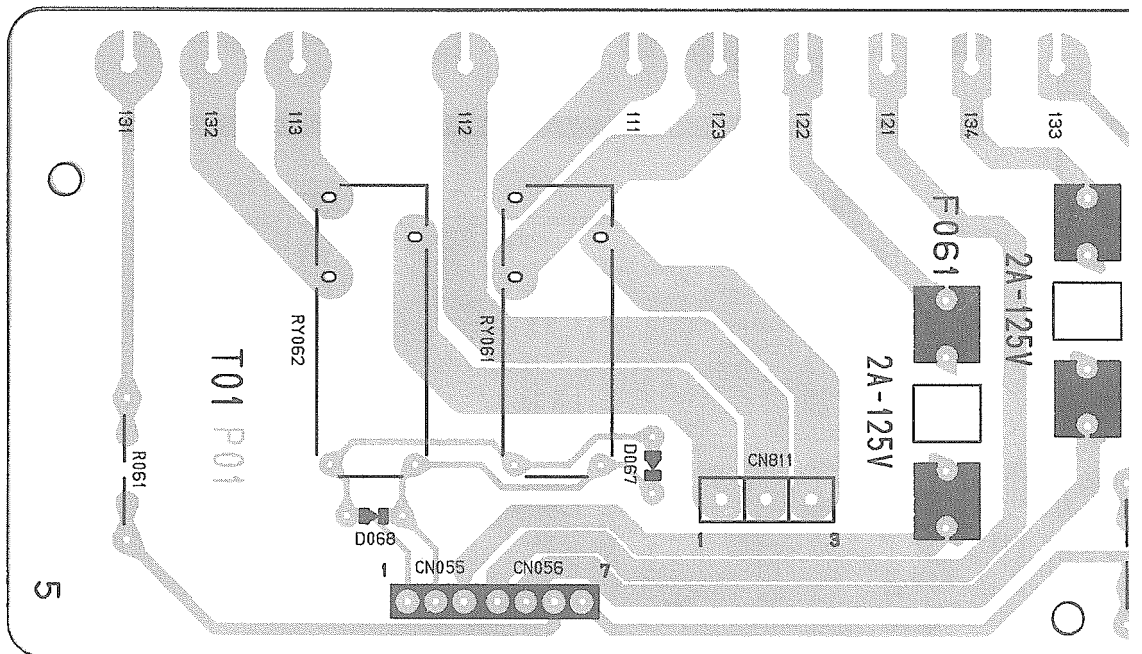




■ Tuner PC Board



■ Resister P.C. Board



5

4

3

2

1

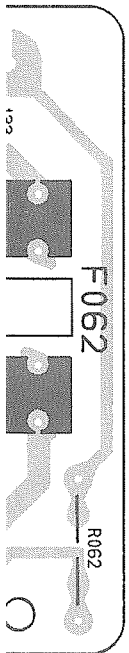
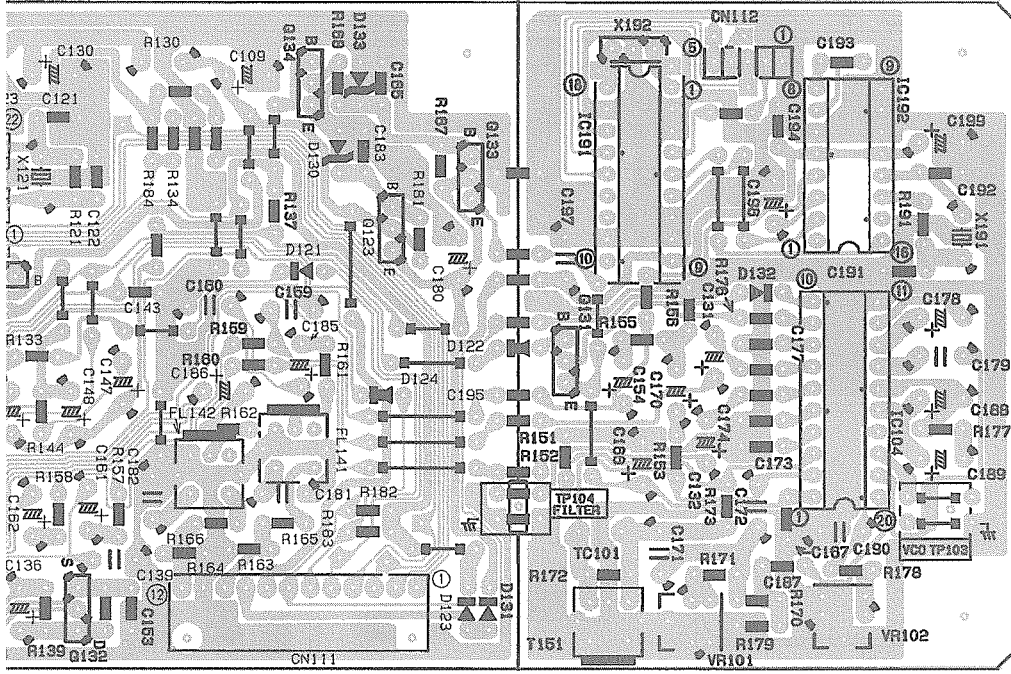
A

B

C

3-18

D



D

E

F

G

H



# PARTS LIST

[ RX-884PBK/RX-884PGD/RX-884VBK ]

\* All printed circuit boards and its assemblies are not available as service parts.

## The Marks for Designated Areas

UF (PBK/PGD) ----- China  
 UT (PBK/VBK) ----- Taiwan  
 US (PBK) ----- Singapore  
 U (PBK/VBK) ----- Universal

## - Contents -

|  |      |
|--|------|
| General Exploded View and Parts List ..... | 4-3  |
| Electrical Parts List .....                | 4-5  |
| Tuner P.C.B. ....                          | 4-5  |
| Main P.C.B. ....                           | 4-6  |
| Front P.C.B. ....                          | 4-9  |
| Control P.C.B. ....                        | 4-11 |
| AC Supply P.C.B. ....                      | 4-13 |
| AC-3 P.C.B. ....                           | 4-16 |
| Resistor P.C.B. ....                       | 4-18 |
| Accessories List .....                     | 4-18 |
| Packing Materials and Parts Number .....   | 4-19 |

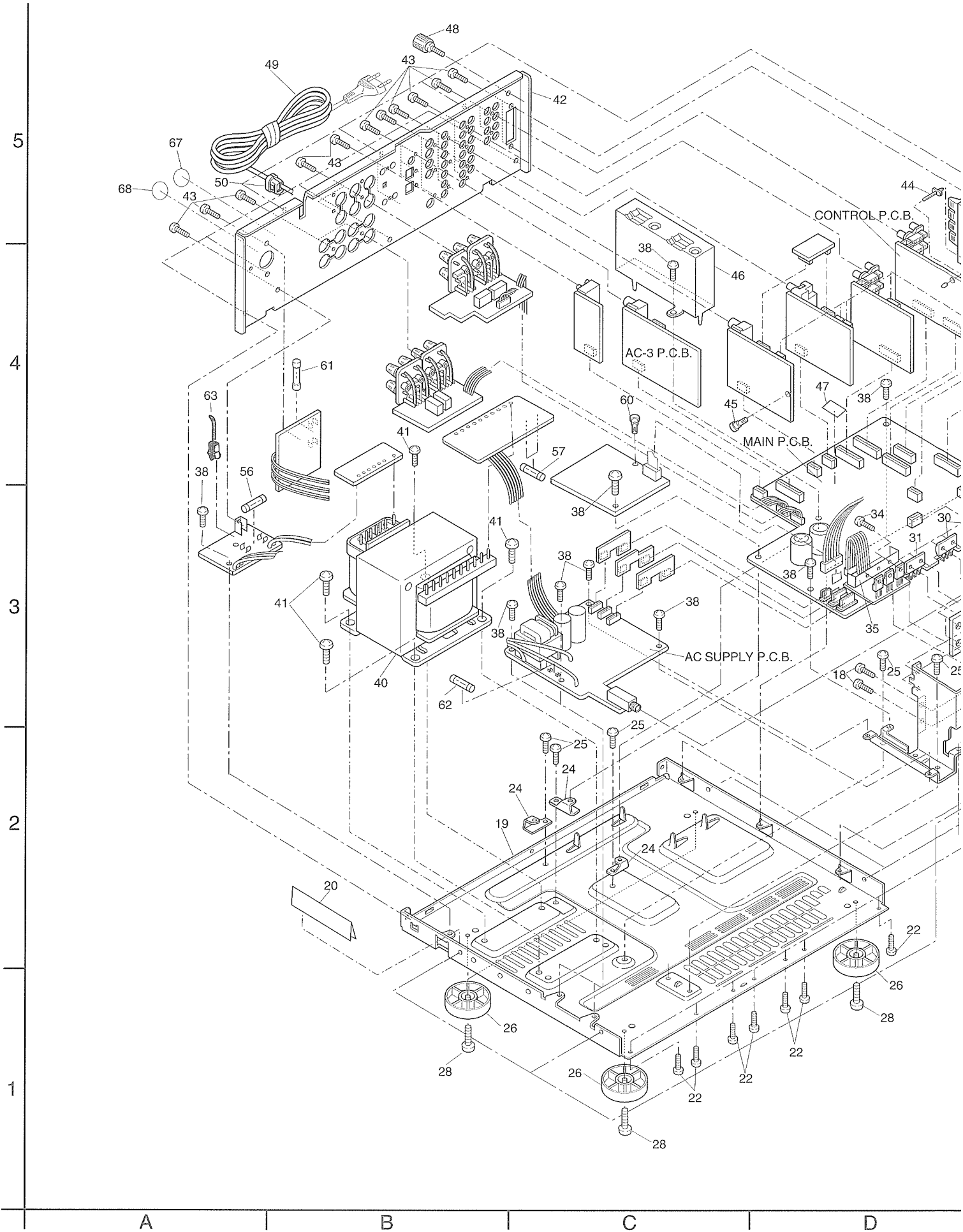
RX-884P/RX-884V

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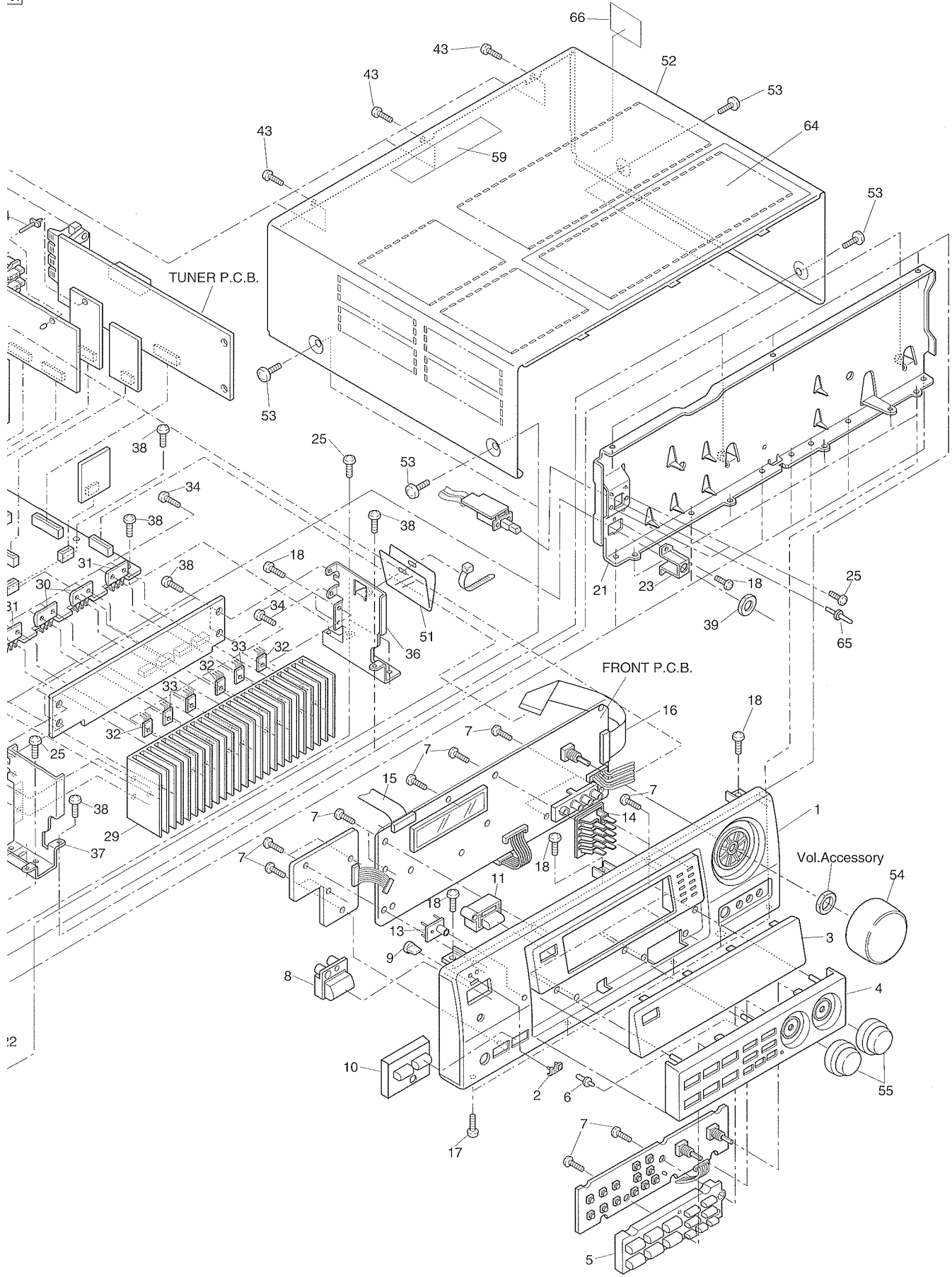


# General Exploded View and Parts List

Block No. M 1 M M







12

## ■ Parts List

Block No. M1MM

| △ | Item | Parts Number    | Parts Name          | Q'ty | Description | Version & Area |
|---|------|-----------------|---------------------|------|-------------|----------------|
|   | 1    | LV10018-004AKP  | FRONT PANEL         | 1    |             | PBK            |
|   |      | LV10018-011A    | FRONT PANEL         | 1    |             | PGD            |
|   |      | LV10018-013AKP  | FRONT PANEL         | 1    |             | VBK            |
|   | 2    | VJD5429-001     | JVC MARK            | 1    |             |                |
|   | 3    | LV20031-001AKP  | LENS                | 1    |             | PBK, VBK       |
|   |      | LV20031-005A    | LENS                | 1    |             | PGD            |
|   | 4    | LV20032-001AKP  | FRONT ESC           | 1    |             | PBK, VBK       |
|   |      | LV20032-003A    | FRONT ESC           | 1    |             | PGD            |
|   | 5    | LV20034-001AKP  | PUSH BUTTON         | 1    |             | PBK, VBK       |
|   |      | LV20034-002A    | PUSH BUTTON         | 1    |             | PGD            |
|   | 6    | LV40099-001AKP  | INDICATOR           | 1    |             |                |
|   | 7    | QYSDSF2608Z     | SCREW               | 18   |             |                |
|   | 8    | LV30068-002AKP  | P. BUTTON (POWER)   | 1    |             | PBK, VBK       |
|   |      | LV30068-003A    | P. BUTTON (POWER)   | 1    |             | PGD            |
|   | 9    | FSJD4001-002    | INDICATOR LENS      | 1    |             |                |
|   | 10   | LV30069-001AKP  | P. BUTTON ASSY      | 1    |             | PBK, VBK       |
|   |      | LV30069-002A    | P. BUTTON ASSY      | 1    |             | PGD            |
|   | 11   | LV30071-001AKP  | P. BUTTON ASSY      | 1    |             |                |
|   | 13   | E308744-002     | REMOCON PLATE       | 1    |             | PBK, VBK       |
|   |      | E308744-003     | REMOCON PLATE       | 1    |             | PGD            |
|   | 14   | LV30073-001AKP  | SOURCE INDICATO     | 1    |             |                |
|   | 15   | QUQ412-2120CJ   | FLAT WIRE           | 1    |             | PBK, PGD       |
|   |      | VWF1221-20TTB   | FLAT WIRE           | 1    |             | VBK            |
|   | 16   | QUQ412-3122GJ   | FLAT WIRE           | 1    |             | PBK, PGD       |
|   |      | VWF1231-22TTBW  | FLAT WIRE           | 1    |             | VBK            |
|   | 17   | QYSDSG3008M     | SCREW               | 5    |             | PBK, VBK       |
|   |      | QYSDSG3008N     | SCREW               | 5    |             | PGD            |
|   | 18   | QYSBSG3008E     | T. SCREW            | 8    |             |                |
|   | 19   | LV10019-002AKP  | CHASSIS BASE        | 1    |             |                |
|   | 20   | EX0150010H09S11 | FELT SPACER         | 1    |             |                |
|   | 21   | LV10020-001AKP  | FRONT BRACKET       | 1    |             |                |
|   | 22   | QYSDSG3008E     | T. SCREW            | 7    |             |                |
|   | 23   | LE40139-001A    | HEADPHONE BRACKET   | 1    |             |                |
|   | 24   | E68587-223SM    | P. W. BOARD BRACKET | 3    |             |                |
|   | 25   | QYSBST3006E     | TAP. SCREW          | 9    |             |                |
|   | 26   | VJF4039-00P     | FOOT ASSY           | 4    |             |                |
|   | 28   | QYSBST3010Z     | TH TAP SCREW        | 4    |             |                |
| △ | 29   | LV30075-201A    | HEAT SINK           | 1    |             | PBK, PGD       |
| △ |      | LV30075-001AKP  | HEAT SINK           | 1    |             | VBK            |
| △ | 30   | 2SC3857/PY/-F1  | SI. TRANSISTOR      | 2    | 3A          |                |
| △ | 31   | 2SA1493/PY/-F1  | SI. TRANSISTOR      | 2    | 3A          |                |
| △ | 32   | 2SD2488/OP/-F1  | SI. TRANSISTOR      | 3    | 3A          |                |
| △ | 33   | 2SB1620/OP/-F1  | SI. TRANSISTOR      | 3    | 3A          |                |
|   | 34   | E73525-003      | SCREW               | 16   |             |                |
|   | 35   | LV40390-001AKP  | LEAF SPRING         | 1    |             |                |
|   | 36   | LV20035-001AKP  | H. S BRACKET (R)    | 1    |             |                |
|   | 37   | LV20036-001AKP  | H. S BRACKET (L)    | 1    |             |                |
|   | 38   | QYSBSGG3008E    | T. SCREW            | 17   |             |                |
|   | 39   | VKZ4150-001     | NUT                 | 1    |             |                |
| △ | 40   | QQT0213-002KP   | POWER TRANS.        | 1    |             |                |
|   | 41   | QYSDSTL4008E    | SPECIAL SCREW       | 4    |             |                |
|   | 42   | LV10021-018AKP  | REAR PANEL          | 1    |             | PBK            |

■ Parts List

Block No. M1MM

| △ | Item | Parts Number    | Parts Name     | Q'ty | Description | Version & Area |
|---|------|-----------------|----------------|------|-------------|----------------|
|   | 42   | LV10021-020A    | REAR PANEL     | 1    |             | PGD            |
|   |      | LV10021-012AKP  | REAR PANEL     | 1    |             | VBKU           |
|   |      | LV10021-014AKP  | REAR PANEL     | 1    |             | VBKUT          |
|   | 43   | QYSBSGY3008E    | SPECIAL SCREW  | 32   |             |                |
|   | 44   | E302321-001     | FASTENER       | 1    |             |                |
|   | 45   | E48729-008      | PLASTIC RIVET  | 1    |             |                |
|   | 46   | LV20037-001AKP  | SHIELD CASE    | 1    |             |                |
|   | 47   | E75896-003      | SPACER         | 1    |             |                |
|   | 48   | E409257-001     | EARTH TERMINAL | 1    |             |                |
| △ | 49   | QMPR100-200-JC  | POWER CORD     | 1    |             | UF             |
| △ |      | QMP39E0-200     | POWER CORD     | 1    |             | U, US          |
| △ |      | QMP7520-200     | POWER CORD     | 1    |             | UT             |
| △ | 50   | QHS3771-108     | CORD STOPPER   | 1    |             |                |
|   | 51   | LV30076-001AKP  | PROTECTOR      | 1    |             |                |
|   | 52   | LV20038-002A(S) | METAL COVER    | 1    |             | PBK, VBK       |
|   |      | LV20038-003A(S) | METAL COVER    | 1    |             | PGD            |
|   | 53   | E406308-003     | SPECIAL SCREW  | 4    |             | PBK, VBK       |
|   |      | E406308-004     | SPECIAL SCREW  | 4    |             | PGD            |
|   | 54   | LV30480-001AKP  | VOL KNOB ASS'Y | 1    |             | PBK, VBK       |
|   |      | LV30480-002A    | VOL KNOB ASS'Y | 1    |             | PGD            |
|   | 55   | LV30481-001AKP  | JOG KNOB ASS'Y | 2    |             | PBK, VBK       |
|   |      | LV30481-002A    | JOG KNOB ASS'Y | 2    |             | PGD            |
| △ | 56   | QMF51E2-6R3-J1  | FUSE           | 1    | F001        |                |
| △ | 57   | QMF51E2-2R0-J1  | FUSE           | 2    | F061, F062  |                |
|   | 59   | E409396-001     | CAUTION LABEL  | 1    |             |                |
|   | 60   | E310243-002     | PLASTIC RIVET  | 1    |             |                |
| △ | 61   | QMF51E2-3R15-J1 | FUSE           | 1    | F004        |                |
| △ | 62   | QMF51A2-R10-S   | FUSE           | 1    | F002        |                |
|   | 63   | E307572-001     | FASTENER       | 1    |             |                |
|   | 64   | LV30077-001AKP  | PROTECT SHEET  | 1    |             | PBK, VBK       |
|   |      | LV30077-002A    | PROTECT SHEET  | 1    |             | PGD            |
|   | 65   | E407321-002SM   | PUSH BUTTON    | 1    |             | PBK, VBK       |
|   |      | E407321-005SMKP | PUSH BUTTON    | 1    |             | PGD            |
|   | 66   | LV30092-028A    | UF LABEL       | 1    |             | UF             |
|   |      | LV30093-021A    | UT LABEL       | 1    |             | PBKUT          |
|   |      | LV30093-027A    | UT LABEL       | 1    |             | VBKUT          |
|   | 67   | E409372-001     | CCEE LABEL     | 1    |             | UF             |
|   | 68   | E409539-001     | CCIB LABEL     | 1    |             | UF             |



Electrical Parts List (Tuner P.C.B)

| PK          | Item         | Part Number | Description             | Area |
|-------------|--------------|-------------|-------------------------|------|
| I.C.C       |              |             |                         |      |
| 0109        | FA100        |             | I.C. SOUND ANALOG       |      |
| 1071        | F07101       |             | I.C.(V)                 |      |
| DIODES      |              |             |                         |      |
| 0121        | 15B185-12    |             | SI DIODE                |      |
| 0122        | 15B185-17    |             | SI DIODE                |      |
| 0123        | 15B132 TR    |             | SI DIODE                |      |
| 0124        | 41C1000-2    |             | ZENER                   |      |
| TRANSISTORS |              |             |                         |      |
| 0101        | 2SD481/257   |             | SILICON                 |      |
| 0108        | 2SD481/257-1 |             | SILICON                 |      |
| 0103        | 2SD481/257-T |             | SILICON                 |      |
| 0105        | 41C1000-1    |             | SILICON                 |      |
| 0125        | 2SD481/257-T |             | SILICON                 |      |
| CAPACITORS  |              |             |                         |      |
| 0104        | 000000-150V  |             | 150V 0.0001μF CAP.      |      |
| 0102        | 000013J-102  |             | 100PF 25V AL. E. CAP.   |      |
| 0102        | 000013J-102  |             | 100PF 50V AL. E. CAP.   |      |
| 0104        | 000013Z-203  |             | 0.0022μF 20V 0. CAP.    |      |
| 0106        | 000013Z-203  |             | 0.0022μF 25V 0. CAP.    |      |
| 0107        | 000013J-102  |             | 0.001μF 25V 0. CAP.     |      |
| 0104        | 000013H-100  |             | 0.0022μF 20V 0. CAP.    |      |
| 011         | 000013Z-203  |             | 0.0022μF 25V 0. CAP.    |      |
| 0117        | 000013J-102  |             | 100PF 25V 0. CAP.       |      |
| 0117        | 000010C-100V |             | 5.0μF 50V 0FR CAP.      |      |
| 0113        | 000013H-100  |             | 10.0μF 50V CLR. CAP.    |      |
| 0121        | 000013J-102  |             | 100PF 10V 0. CAP.       |      |
| 0122        | 000013H-100  |             | 10.0μF 50V 0. CAP.      |      |
| 0123        | 000013H-100  |             | 10.0μF 50V 0. CAP.      |      |
| 0123        | 000013H-100  |             | 10.0μF 50V 0. CAP.      |      |
| 0120        | 000013K-101  |             | 100PF 50V CLR. CAP.     |      |
| 0126        | 000013G-101  |             | 0.01μF 50V 0. CAP.      |      |
| 0129        | 000013H-100  |             | 10.0μF 50V CLR. CAP.    |      |
| 0130        | 000013J-102  |             | 100PF 25V AL. E. CAP.   |      |
| 0132        | 000013H-100  |             | 10.0μF 50V 0. CAP.      |      |
| 0134        | 000013G-101  |             | 100PF 50V 0. CAP.       |      |
| 0135        | 000013Z-203  |             | 0.0022μF 25V 0. CAP.    |      |
| 0136        | 000013H-100  |             | 10.0μF 50V AL. E. CAP.  |      |
| 0137        | 000013K-101  |             | 100PF 50V CLR. CAP.     |      |
| 0139        | 000013J-102  |             | 0.0022μF 25V MYLAR CAP. |      |
| 0140        | 000013J-102  |             | 0.0022μF 25V MYLAR CAP. |      |
| 0141        | 000013H-100  |             | 0.0022μF 25V 0. CAP.    |      |
| 0143        | 000013Z-203  |             | 0.0022μF 25V 0. CAP.    |      |
| 0144        | 000013H-100  |             | 0.0022μF 25V 0. CAP.    |      |
| 0144        | 000013H-100  |             | 0.0022μF 25V 0. CAP.    |      |
| 0145        | 000013H-100  |             | 10.0μF 50V AL. E. CAP.  |      |
| 0147        | 000013H-100  |             | 10.0μF 50V AL. E. CAP.  |      |
| 0148        | 000013H-100  |             | 10.0μF 50V AL. E. CAP.  |      |
| 0148        | 000013H-100  |             | 10.0μF 50V AL. E. CAP.  |      |
| 0150        | 000013K-101  |             | 100PF 50V 0. CAP.       |      |
| 0151        | 000013H-100  |             | 10.0μF 50V 0. CAP.      |      |
| 0157        | 000013H-100  |             | 0.01μF 25V 0. CAP.      |      |
| 0158        | 000013H-100  |             | 10.0μF 25V 0. CAP.      |      |
| 0161        | 000013H-100  |             | 10.0μF 50V AL. E. CAP.  |      |
| 0182        | 000013H-100  |             | 10.0μF 50V AL. E. CAP.  |      |
| 0185        | 000013Z-203  |             | 0.0022μF 25V 0. CAP.    |      |
| 0189        | 000013H-100  |             | 10.0μF 50V 0. CAP.      |      |
| 0189        | 000013Z-203  |             | 1.5μF 25V 0. CAP.       |      |
| 0190        | 000013J-102  |             | 100PF 25V AL. E. CAP.   |      |
| 0191        | 000013H-100  |             | 10.0μF 50V MYLAR CAP.   |      |
| 0192        | 000013J-102  |             | 5000PF 10V MYLAR CAP.   |      |
| 0193        | 000013Z-203  |             | 0.0022μF 25V 0. CAP.    |      |
| 0195        | 000013H-100  |             | 10.0μF 25V AL. E. CAP.  |      |
| 0195        | 000013H-100  |             | 10.0μF 25V AL. E. CAP.  |      |
| 0195        | 000013H-100  |             | 10.0μF 50V AL. E. CAP.  |      |
| NETWORKS    |              |             |                         |      |
| R102        | 00C141J-270  |             | 5.7K 1/4W R. NETWORK    |      |
| R108        | 00C141J-221  |             | 220 1/4W R. NETWORK     |      |

| PK     | Item         | Part Number | Description          | Area |
|--------|--------------|-------------|----------------------|------|
| R104   | 00C141J-270  |             | 5.7K 1/4W R. NETWORK |      |
| R110   | 00C141J-270  |             | 220 1/4W R. NETWORK  |      |
| R106   | 00C141J-102  |             | 1K 1/4W R. NETWORK   |      |
| R107   | 00C141J-252  |             | 550 1/4W R. NETWORK  |      |
| R108   | 00C141J-252  |             | 5.5K 1/4W R. NETWORK |      |
| R102   | 00C141J-251  |             | 250 1/4W R. NETWORK  |      |
| R115   | 00C141J-104  |             | 100K 1/4W R. NETWORK |      |
| R118   | 00C141J-100V |             | 70K 1/4W R. NETWORK  |      |
| R121   | 00C141J-472  |             | 47K 1/4W R. NETWORK  |      |
| R122   | 00C141J-472  |             | 4.7K 1/4W R. NETWORK |      |
| R124   | 00C141J-202  |             | 2.2K 1/4W R. NETWORK |      |
| R128   | 00C141J-552  |             | 5.5K 1/4W R. NETWORK |      |
| R127   | 00C141J-202  |             | 2.2K 1/4W R. NETWORK |      |
| R128   | 00C141J-472  |             | 4.7K 1/4W R. NETWORK |      |
| R129   | 00C141J-202  |             | 2.2K 1/4W R. NETWORK |      |
| R130   | 00C2005-500  |             | 50 50V ALUMINUM      |      |
| R132   | 00C141J-102  |             | 1K 1/4W R. NETWORK   |      |
| R133   | 00C141J-202  |             | 2.2K 1/4W R. NETWORK |      |
| R144   | 00C141J-102  |             | 1K 1/4W R. NETWORK   |      |
| R146   | 00C141J-100  |             | 10K 1/4W CARBON RES. |      |
| R141   | 00C141J-472  |             | 4.7K 1/4W R. NETWORK |      |
| R148   | 00C141J-470  |             | 47 1/4W R. NETWORK   |      |
| R149   | 00C141J-622  |             | 6.2K 1/4W R. NETWORK |      |
| R144   | 00C141J-202  |             | 2.2K 1/4W R. NETWORK |      |
| R148   | 00C141J-100  |             | 10K 1/4W R. NETWORK  |      |
| R140   | 00C141J-202  |             | 2.2K 1/4W R. NETWORK |      |
| R142   | 00C141J-272  |             | 27K 1/4W R. NETWORK  |      |
| R148   | 00C141J-101  |             | 10K 1/4W R. NETWORK  |      |
| R150   | 00C141J-101  |             | 10K 1/4W R. NETWORK  |      |
| R151   | 00C141J-602  |             | 60K 1/4W R. NETWORK  |      |
| R161   | 00C141J-101  |             | 10K 1/4W R. NETWORK  |      |
| R102   | 00C141J-102  |             | 1K 1/4W R. NETWORK   |      |
| R161   | 00C141J-472  |             | 4.7K 1/4W R. NETWORK |      |
| R164   | 00C141J-102  |             | 1K 1/4W R. NETWORK   |      |
| R162   | 00C141J-100  |             | 10K 1/4W R. NETWORK  |      |
| R163   | 00C141J-100  |             | 10K 1/4W R. NETWORK  |      |
| R164   | 00C141J-100  |             | 10K 1/4W R. NETWORK  |      |
| OTHERS |              |             |                      |      |
| L101   | 00L251K-150  |             | INDUCTOR 5.0μH       |      |
| L11    | 00M052-501   |             | RT COIL              |      |
| L11    | 00M013-501   |             | I.F. TRANSFORMER     |      |
| L142   | 00X0303-001  |             | CERAMIC FILTER       |      |
| R101   | 00R0302-001  |             | RESONATOR 1.0MHZ     |      |
| R101   | 00R0008-001  |             | AMP TERMINAL         |      |
| C101   | 00X0303-001  |             | CERAMIC FILTER       |      |
| C102   | 00X0303-001  |             | CERAMIC FILTER       |      |
| C111   | 00R0303-101  |             | RESONATOR            |      |
| FL101  | 00R0502-001  |             | LOWPASS FILTER       |      |
| FL12   | 00R0502-001  |             | LOWPASS FILTER       |      |
| PH01   | 00P2227-001  |             | PIBENT PIN           |      |

■ Electrical Parts List (Main P.C.B)

| △ | Item  | Parts Number   | Description        | Area |
|---|-------|----------------|--------------------|------|
|   |       | I. C. S        |                    |      |
|   | IC321 | TC9162AN       | I. C (DIGI-OTHER)  |      |
|   | IC331 | TC9459F        | I. C (M)           |      |
|   | IC332 | TC9459F        | I. C (M)           |      |
|   | IC333 | TC9459F        | I. C (M)           |      |
|   | IC361 | NJM4580L       | I. C (MONO-ANALOG) |      |
|   | IC362 | BA15218N       | I. C (MONO-ANALOG) |      |
|   | IC363 | BA15218N       | I. C (MONO-ANALOG) |      |
|   | IC451 | LC7522         | I. C (DIGI-MOS)    |      |
|   | IC452 | M5243AP12      | I. C (M)           |      |
|   | IC901 | TA7317P        | I. C (MONO-ANALOG) |      |
|   |       | DIODES         |                    |      |
|   | D743  | MTZJ18C-T2     | ZENER              |      |
|   | D771  | 1SS133-T2      | SI. DIODE          |      |
|   | D772  | 1SS133-T2      | SI. DIODE          |      |
|   | D773  | 1SS133-T2      | SI. DIODE          |      |
|   | D774  | 1SS133-T2      | SI. DIODE          |      |
|   | D821  | MTZJ6. 8C-T2   | ZENER              |      |
|   | D822  | 1SS133-T2      | SI. DIODE          |      |
|   | D831  | MTZJ6. 2C-T2   | ZENER              |      |
|   | D832  | 1SS133-T2      | SI. DIODE          |      |
|   | D841  | MTZJ6. 2C-T2   | ZENER              |      |
|   | D842  | 1SS133-T2      | SI. DIODE          |      |
|   | D851  | MTZJ15C-T2     | ZENER              |      |
|   | D852  | 1SS133-T2      | SI. DIODE          |      |
|   | D861  | MTZJ15C-T2     | ZENER              |      |
|   | D862  | 1SS133-T2      | SI. DIODE          |      |
|   | D871  | MTZJ13C-T2     | ZENER              |      |
|   | D872  | 1SS133-T2      | SI. DIODE          |      |
|   | D901  | 1SS133-T2      | SI. DIODE          |      |
|   | D902  | 1SS133-T2      | SI. DIODE          |      |
|   | D921  | MTZJ4. 7B-T2   | ZENER              |      |
|   | D931  | 1SS133-T2      | SI. DIODE          |      |
|   | D932  | 1SS133-T2      | SI. DIODE          |      |
|   | D933  | 1SS133-T2      | SI. DIODE          |      |
|   | D934  | 1SS133-T2      | SI. DIODE          |      |
|   | D953  | 1SS133-T2      | SI. DIODE          |      |
|   | D954  | 1SS133-T2      | SI. DIODE          |      |
|   | D971  | 1SS133-T2      | SI. DIODE          |      |
|   | D973  | 1SS133-T2      | SI. DIODE          |      |
|   | D1435 | 1SS133-T2      | SI. DIODE          |      |
|   | D1436 | 1SS133-T2      | SI. DIODE          |      |
|   | D1437 | MTZJ4. 7B-T2   | ZENER              |      |
|   | D1451 | MTZJ6. 8C-T2   | ZENER              |      |
|   | D1452 | MTZJ6. 8C-T2   | ZENER              |      |
|   | D1453 | MTZJ5. 1C-T2   | ZENER              |      |
|   |       | TRANSISTORS    |                    |      |
|   | Q751  | 2SC2389S/S/-T  | SILICON            |      |
|   | Q752  | 2SC2389S/S/-T  | SILICON            |      |
|   | Q753  | 2SA1038S/S/-T  | SILICON            |      |
|   | Q754  | 2SA1038S/S/-T  | SILICON            |      |
|   | Q755  | 2SD669A/BG/    | SILICON            |      |
|   | Q756  | 2SD669A/BG/    | SILICON            |      |
|   | Q757  | 2SB649A/BG/    | SILICON            |      |
|   | Q758  | 2SB649A/BG/    | SILICON            |      |
|   | Q771  | 2SC2389S/SE/-T | SI. TRANSISTOR     |      |
|   | Q772  | 2SC2389S/SE/-T | SI. TRANSISTOR     |      |
|   | Q773  | 2SA1038S/SE/-T | SILICON            |      |
|   | Q774  | 2SA1038S/SE/-T | SILICON            |      |
|   | Q781  | 2SD636/QR/     | SILICON            |      |
|   | Q782  | 2SD636/QR/     | SILICON            |      |
|   | Q821  | 2SD2061/EF/    | SI. TRANSISTOR     |      |
|   | Q831  | 2SD2061/EF/    | SI. TRANSISTOR     |      |
|   | Q841  | 2SD2061/EF/    | SI. TRANSISTOR     |      |
| △ | Q851  | 2SD2061/EF/    | SI. TRANSISTOR     |      |
| △ | Q861  | 2SB1187/EF/    | SILICON            |      |
|   | Q871  | 2SD2061/EF/    | SI. TRANSISTOR     |      |
|   | Q901  | 2SC2389S/SE/-T | SI. TRANSISTOR     |      |
|   | Q902  | 2SC2389S/SE/-T | SI. TRANSISTOR     |      |
|   | Q903  | 2SA1038S/SE/-T | SILICON            |      |
|   | Q921  | 2SC1740S/RS/-T | SILICON            |      |
|   | Q931  | DTC123YS-T     | SILICON            |      |
|   | Q932  | DTC123YS-T     | SILICON            |      |
|   | Q951  | DTC123YS-T     | SILICON            |      |
|   | Q952  | DTC123YS-T     | SILICON            |      |

| △ | Item  | Parts Number  | Description             | Area |
|---|-------|---------------|-------------------------|------|
|   | Q1401 | 2SC2878/AB/-T | SILICON                 |      |
|   | Q1402 | 2SC2878/AB/-T | SILICON                 |      |
|   | Q1405 | DTA144ES-T    | SILICON                 |      |
|   | Q1411 | 2SC2878/AB/-T | SILICON                 |      |
|   | Q1421 | 2SC2878/AB/-T | SILICON                 |      |
|   | Q1422 | 2SC2878/AB/-T | SILICON                 |      |
|   | Q1435 | 2SA933S/RS/-T | SILICON                 |      |
|   | Q1441 | DTA144ES-T    | SILICON                 |      |
|   |       | CAPACITORS    |                         |      |
|   | C701  | QETB1HM-106   | 10MF 50V E. CAP.        |      |
|   | C702  | QETB1HM-106   | 10MF 50V E. CAP.        |      |
|   | C703  | QCS21HJ-101A  | 100PF 50V CER. CAP.     |      |
|   | C704  | QCS21HJ-101A  | 100PF 50V CER. CAP.     |      |
|   | C707  | QETB1CM-107   | 100MF 16V AL E. CAP.    |      |
|   | C708  | QETB1CM-107   | 100MF 16V AL E. CAP.    |      |
|   | C709  | QCS21HJ-100   | 10PF 50V CER. CAP.      |      |
|   | C710  | QCS21HJ-100   | 10PF 50V CER. CAP.      |      |
|   | C719  | QFLB1HJ-472   | 4700PF 50V MYLAR CAP.   |      |
|   | C720  | QFLB1HJ-472   | 4700PF 50V MYLAR CAP.   |      |
|   | C741  | QETB2AM-476   | 47MF 100V AL E. CAP.    |      |
|   | C742  | QETB2AM-476   | 47MF 100V AL E. CAP.    |      |
|   | C743  | QETB1EM-476   | 47MF 25V AL E. CAP.     |      |
|   | C751  | QCS22HJ-470A  | 47PF 500V CER. CAP.     |      |
|   | C752  | QCS22HJ-470A  | 47PF 500V CER. CAP.     |      |
|   | C753  | QCS22HJ-470A  | 47PF 500V CER. CAP.     |      |
|   | C754  | QCS22HJ-470A  | 47PF 500V CER. CAP.     |      |
|   | C791  | QFLB1HJ-473   | 0. 047MF 50V MYLAR CAP. |      |
|   | C792  | QFLB1HJ-473   | 0. 047MF 50V MYLAR CAP. |      |
|   | C793  | QFLB1HJ-473   | 0. 047MF 50V MYLAR CAP. |      |
|   | C794  | QFLB1HJ-473   | 0. 047MF 50V MYLAR CAP. |      |
|   | C807  | QE20427-129   | 12000MF NP E. CAP.      |      |
|   | C808  | QE20427-129   | 12000MF NP E. CAP.      |      |
|   | C821  | QEHCIEM-107   | 100MF 25V E. CAP.       |      |
|   | C822  | QCF31HZ-472Z  | 4700PF 50V CERAMIC      |      |
|   | C831  | QEHCIEM-227Z  | 220MF 25V ELECTRO       |      |
|   | C832  | QCF31HZ-472Z  | 4700PF 50V CERAMIC      |      |
|   | C841  | QEHCIEM-107   | 100MF 25V E. CAP.       |      |
|   | C842  | QCF31HZ-472Z  | 4700PF 50V CERAMIC      |      |
|   | C851  | QETB1EM-107   | 100MF 25V AL E. CAP.    |      |
|   | C852  | QCF31HZ-472Z  | 4700PF 50V CERAMIC      |      |
|   | C861  | QETB1EM-107   | 100MF 25V AL E. CAP.    |      |
|   | C862  | QCF31HZ-472Z  | 4700PF 50V CERAMIC      |      |
|   | C871  | QETB1EM-107   | 100MF 25V AL E. CAP.    |      |
|   | C872  | QCF31HZ-472Z  | 4700PF 50V CERAMIC      |      |
|   | C903  | QER61HM-226   | 22MF 50V AL E. CAP.     |      |
|   | C904  | QCF31HZ-103Z  | 0. 01MF 50V CERAMIC     |      |
|   | C905  | QCB31HK-102Z  | 1000PF 50V CERAMIC      |      |
|   | C906  | QETC1AM-476ZM | 47MF 10V E. CAP.        |      |
|   | C920  | QETB1CM-226   | 22MF 16V E. CAP.        |      |
|   | C921  | QER51CM-107   | 100MF 16V E. CAP.       |      |
|   | C935  | QFLB1HJ-223   | 0. 022MF 50V MYLAR CAP. |      |
|   | C936  | QFLB1HJ-223   | 0. 022MF 50V MYLAR CAP. |      |
|   | C937  | QFLB1HJ-223   | 0. 022MF 50V MYLAR CAP. |      |
|   | C938  | QFLB1HJ-223   | 0. 022MF 50V MYLAR CAP. |      |
|   | C939  | QFLB1HJ-223   | 0. 022MF 50V MYLAR CAP. |      |
|   | C940  | QFLB1HJ-223   | 0. 022MF 50V MYLAR CAP. |      |
|   | C941  | QCS21HJ-221   | 220PF 50V CER. CAP.     |      |
|   | C942  | QCS21HJ-221   | 220PF 50V CER. CAP.     |      |
|   | C943  | QCS21HJ-221   | 220PF 50V CER. CAP.     |      |
|   | C944  | QCS21HJ-221   | 220PF 50V CER. CAP.     |      |
|   | C1301 | QETB1EM-476   | 47MF 25V AL E. CAP.     |      |
|   | C1302 | QETB1EM-476   | 47MF 25V AL E. CAP.     |      |
|   | C1303 | QDVB1EZ-223Y  | 0. 022MF 25V C CAP.     |      |
|   | C1304 | QDVB1EZ-223Y  | 0. 022MF 25V C CAP.     |      |
|   | C1307 | QFLB1HJ-821   | 820PF 50V MYLAR CAP.    |      |
|   | C1308 | QFLB1HJ-821   | 820PF 50V MYLAR CAP.    |      |
|   | C1309 | QFVJ1HJ-224Z  | 0. 22MF 50V T. FILM     |      |
|   | C1310 | QFVJ1HJ-224Z  | 0. 22MF 50V T. FILM     |      |
|   | C1311 | QETB1HM-475E  | 4. 7MF 50V E. CAP.      |      |
|   | C1312 | QETB1HM-475E  | 4. 7MF 50V E. CAP.      |      |
|   | C1313 | QETB1HM-475E  | 4. 7MF 50V E. CAP.      |      |
|   | C1314 | QETB1HM-475E  | 4. 7MF 50V E. CAP.      |      |
|   | C1315 | QETB1EM-476   | 47MF 25V AL E. CAP.     |      |
|   | C1316 | QETB1EM-476   | 47MF 25V AL E. CAP.     |      |
|   | C1317 | QDVB1EZ-223Y  | 0. 022MF 25V C CAP.     |      |

### ■ Electrical Parts List (Main P.C.B)

| △ | Item  | Parts Number  | Description           | Area |
|---|-------|---------------|-----------------------|------|
|   | C1318 | QDVB1EZ-223Y  | 0.022MF 25V C CAP.    |      |
|   | C1319 | QCBB1HK-221Y  | 220PF 50V CER. CAP.   |      |
|   | C1321 | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1322 | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1323 | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1324 | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1325 | QETB1EM-476   | 47MF 25V AL E. CAP.   |      |
|   | C1326 | QETB1EM-476   | 47MF 25V AL E. CAP.   |      |
|   | C1327 | QDVB1EZ-223Y  | 0.022MF 25V C CAP.    |      |
|   | C1328 | QDVB1EZ-223Y  | 0.022MF 25V C CAP.    |      |
|   | C1329 | QCBB1HK-221Y  | 220PF 50V CER. CAP.   |      |
|   | C1331 | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1332 | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1333 | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1334 | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1335 | QETB1EM-476   | 47MF 25V AL E. CAP.   |      |
|   | C1336 | QETB1EM-476   | 47MF 25V AL E. CAP.   |      |
|   | C1337 | QDVB1EZ-223Y  | 0.022MF 25V C CAP.    |      |
|   | C1338 | QDVB1EZ-223Y  | 0.022MF 25V C CAP.    |      |
|   | C1339 | QCBB1HK-221Y  | 220PF 50V CER. CAP.   |      |
|   | C1360 | QCZ0202-155   | 1.5MF 25V CER. CAP.   |      |
|   | C1361 | QETB1HM-105   | 1MF 50V AL E. CAP.    |      |
|   | C1362 | QETB1HM-105   | 1MF 50V AL E. CAP.    |      |
|   | C1369 | QETB1EM-476   | 47MF 25V AL E. CAP.   |      |
|   | C1370 | QETB1EM-476   | 47MF 25V AL E. CAP.   |      |
|   | C1371 | QETB1HM-105   | 1MF 50V AL E. CAP.    |      |
|   | C1372 | QETB1HM-105   | 1MF 50V AL E. CAP.    |      |
|   | C1379 | QETB1EM-476   | 47MF 25V AL E. CAP.   |      |
|   | C1380 | QETB1EM-476   | 47MF 25V AL E. CAP.   |      |
|   | C1381 | QETB1HM-105   | 1MF 50V AL E. CAP.    |      |
|   | C1382 | QETB1HM-105   | 1MF 50V AL E. CAP.    |      |
|   | C1389 | QETB1EM-476   | 47MF 25V AL E. CAP.   |      |
|   | C1390 | QETB1EM-476   | 47MF 25V AL E. CAP.   |      |
|   | C1405 | QETC1CM-226ZM | 22MF 16V E. CAP.      |      |
|   | C1441 | QETB1HM-105   | 1MF 50V AL E. CAP.    |      |
|   | C1451 | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1452 | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1453 | QCS21HJ-101A  | 100PF 50V CER. CAP.   |      |
|   | C1454 | QCS21HJ-101A  | 100PF 50V CER. CAP.   |      |
|   | C1455 | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1456 | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1457 | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1458 | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1459 | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1460 | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1461 | QETB1CM-476   | 47MF 16V AL E. CAP.   |      |
|   | C1462 | QETB1CM-476   | 47MF 16V AL E. CAP.   |      |
|   | C1463 | QDVB1EZ-223Y  | 0.022MF 25V C CAP.    |      |
|   | C1464 | QDVB1EZ-223Y  | 0.022MF 25V C CAP.    |      |
|   | C1465 | QETB1CM-476   | 47MF 16V AL E. CAP.   |      |
|   | C1469 | QCS21HJ-470   | 47PF 50V CER. CAP.    |      |
|   | C1470 | QCS21HJ-470   | 47PF 50V CER. CAP.    |      |
|   | C1471 | QFVJ1HJ-333Z  | 0.033MF 50V T. FILM   |      |
|   | C1472 | QFVJ1HJ-333Z  | 0.033MF 50V T. FILM   |      |
|   | C1473 | QETB1HM-105   | 1MF 50V AL E. CAP.    |      |
|   | C1474 | QETB1HM-105   | 1MF 50V AL E. CAP.    |      |
|   | C1475 | QFLB1HJ-332   | 3300PF 50V MYLAR CAP. |      |
|   | C1476 | QFLB1HJ-332   | 3300PF 50V MYLAR CAP. |      |
|   | C1477 | QFVJ1HJ-104Z  | 0.1MF 50V T. FILM     |      |
|   | C1478 | QFVJ1HJ-104Z  | 0.1MF 50V T. FILM     |      |
|   | C1479 | QCS31HJ-331Z  | 330PF 50V CER. CAP.   |      |
|   | C1480 | QCS31HJ-331Z  | 330PF 50V CER. CAP.   |      |
|   | C1481 | QFVJ1HJ-103Z  | 0.01MF 50V T. FILM    |      |
|   | C1482 | QFVJ1HJ-103Z  | 0.01MF 50V T. FILM    |      |
|   |       | RESISTORS     |                       |      |
|   | R701  | QRE141J-222Y  | 2.2K 1/4W R. NETWORK  |      |
|   | R702  | QRE141J-222Y  | 2.2K 1/4W R. NETWORK  |      |
|   | R703  | QRE141J-104Y  | 100K 1/4W R. NETWORK  |      |
|   | R704  | QRE141J-104Y  | 100K 1/4W R. NETWORK  |      |
|   | R711  | QRE141J-911Y  | 910 1/4W R. NETWORK   |      |
|   | R712  | QRE141J-911Y  | 910 1/4W R. NETWORK   |      |
|   | R713  | QRE141J-183Y  | 18K 1/4W CARBON RES.  |      |
|   | R714  | QRE141J-183Y  | 18K 1/4W CARBON RES.  |      |
|   | R715  | QRE141J-823Y  | 82K 1/4W R. NETWORK   |      |
|   | R716  | QRE141J-823Y  | 82K 1/4W R. NETWORK   |      |
|   | R741  | QRJ146J-100X  | 10 1/4W R. NETWORK    |      |
|   | R742  | QRJ146J-100X  | 10 1/4W R. NETWORK    |      |
|   | R743  | QRL022J-562   | 5.6K 2W R. NETWORK    |      |
|   | R751  | QRJ146J-100X  | 10 1/4W R. NETWORK    |      |
|   | R752  | QRJ146J-100X  | 10 1/4W R. NETWORK    |      |
|   | R753  | QRJ146J-100X  | 10 1/4W R. NETWORK    |      |
|   | R754  | QRJ146J-100X  | 10 1/4W R. NETWORK    |      |
|   | R759  | QRJ146J-272X  | 2.7K 1/4W R. NETWORK  |      |
|   | R760  | QRJ146J-272X  | 2.7K 1/4W R. NETWORK  |      |
|   | R765  | QRJ146J-100X  | 10 1/4W R. NETWORK    |      |
|   | R766  | QRJ146J-100X  | 10 1/4W R. NETWORK    |      |
|   | R767  | QRJ146J-100X  | 10 1/4W R. NETWORK    |      |
|   | R768  | QRJ146J-100X  | 10 1/4W R. NETWORK    |      |
|   | R769  | QRJ146J-271X  | 270 1/4W R. NETWORK   |      |
|   | R770  | QRJ146J-271X  | 270 1/4W R. NETWORK   |      |
|   | R771  | QRE141J-391Y  | 390 1/4W R. NETWORK   |      |
|   | R772  | QRE141J-391Y  | 390 1/4W R. NETWORK   |      |
|   | R773  | QRE141J-391Y  | 390 1/4W R. NETWORK   |      |
|   | R774  | QRE141J-391Y  | 390 1/4W R. NETWORK   |      |
|   | R775  | QRE141J-201Y  | 200 1/4W R. NETWORK   |      |
|   | R776  | QRE141J-201Y  | 200 1/4W R. NETWORK   |      |
|   | R777  | QRE141J-201Y  | 200 1/4W R. NETWORK   |      |
|   | R778  | QRE141J-201Y  | 200 1/4W R. NETWORK   |      |
|   | R779  | QRZ0197-R22   | 0.22 1W NETWORK RES.  |      |
|   | R780  | QRZ0197-R22   | 0.22 1W NETWORK RES.  |      |
|   | R781  | QRE141J-391Y  | 390 1/4W R. NETWORK   |      |
|   | R782  | QRE141J-391Y  | 390 1/4W R. NETWORK   |      |
|   | R783  | QRE141J-471Y  | 470 1/4W R. NETWORK   |      |
|   | R784  | QRE141J-471Y  | 470 1/4W R. NETWORK   |      |
|   | R785  | QRE141J-102Y  | 1K 1/4W R. NETWORK    |      |
|   | R786  | QRE141J-102Y  | 1K 1/4W R. NETWORK    |      |
|   | R789  | QRE141J-102Y  | 1K 1/4W R. NETWORK    |      |
|   | R790  | QRE141J-102Y  | 1K 1/4W R. NETWORK    |      |
|   | R791  | QRJ125J-330   | 33 1/2W R. NETWORK    |      |
|   | R792  | QRJ125J-330   | 33 1/2W R. NETWORK    |      |
|   | R793  | QRL022J-100   | 10 2W R. NETWORK      |      |
|   | R794  | QRL022J-100   | 10 2W R. NETWORK      |      |
|   | R801  | QRE141J-104Y  | 100K 1/4W R. NETWORK  |      |
|   | R802  | QRE141J-104Y  | 100K 1/4W R. NETWORK  |      |
|   | R821  | QRK126J-220X  | 22 1/2W R. NETWORK    |      |
|   | R822  | QRK126J-220X  | 22 1/2W R. NETWORK    |      |
|   | R823  | QRJ146J-821X  | 820 1/4W R. NETWORK   |      |
|   | R831  | QRL022J-100   | 10 2W R. NETWORK      |      |
|   | R833  | QRJ146J-821X  | 820 1/4W R. NETWORK   |      |
|   | R841  | QRJ146J-220X  | 22 1/4W R. NETWORK    |      |
|   | R842  | QRJ146J-220X  | 22 1/4W R. NETWORK    |      |
|   | R843  | QRJ146J-821X  | 820 1/4W R. NETWORK   |      |
|   | R851  | QRJ146J-120X  | 12 1/4W R. NETWORK    |      |
|   | R853  | QRJ146J-272X  | 2.7K 1/4W R. NETWORK  |      |
|   | R861  | QRJ146J-100X  | 10 1/4W R. NETWORK    |      |
|   | R863  | QRJ146J-272X  | 2.7K 1/4W R. NETWORK  |      |
|   | R871  | QRJ146J-120X  | 12 1/4W R. NETWORK    |      |
|   | R873  | QRJ146J-222X  | 2.2K 1/4W R. NETWORK  |      |
|   | R901  | QRE141J-272Y  | 2.7K 1/4W R. NETWORK  |      |
|   | R902  | QRE141J-272Y  | 2.7K 1/4W R. NETWORK  |      |
|   | R903  | QRE141J-153Y  | 15K 1/4W R. NETWORK   |      |
|   | R904  | QRE141J-153Y  | 15K 1/4W R. NETWORK   |      |
|   | R905  | QRE141J-123Y  | 12K 1/4W R. NETWORK   |      |
|   | R906  | QRE141J-123Y  | 12K 1/4W R. NETWORK   |      |
|   | R909  | QRE141J-103Y  | 10K 1/4W R. NETWORK   |      |
|   | R911  | QRE141J-332Y  | 3.3K 1/4W R. NETWORK  |      |
|   | R912  | QRE141J-473Y  | 47K 1/4W R. NETWORK   |      |
|   | R913  | QRE141J-104Y  | 100K 1/4W R. NETWORK  |      |
|   | R914  | QRE141J-823Y  | 82K 1/4W R. NETWORK   |      |
|   | R915  | QRE141J-823Y  | 82K 1/4W R. NETWORK   |      |
|   | R916  | QRE141J-563Y  | 56K 1/4W R. NETWORK   |      |
|   | R917  | QRE141J-683Y  | 68K 1/4W R. NETWORK   |      |
|   | R918  | QRE141J-822Y  | 8.2K 1/4W R. NETWORK  |      |
|   | R919  | QRE141J-822Y  | 8.2K 1/4W R. NETWORK  |      |
|   | R920  | QRE141J-224Y  | 220K 1/4W R. NETWORK  |      |
|   | R921  | QRE141J-473Y  | 47K 1/4W R. NETWORK   |      |
|   | R922  | QRE141J-222Y  | 2.2K 1/4W R. NETWORK  |      |
|   | R931  | QRJ146J-120X  | 12 1/4W R. NETWORK    |      |
|   | R932  | QRJ146J-120X  | 12 1/4W R. NETWORK    |      |
|   | R935  | QRZ9005-100X  | 10 FUSIBLE            |      |

### ■ Electrical Parts List (Main P.C.B)

| △ | Item  | Parts Number | Description          | Area |
|---|-------|--------------|----------------------|------|
|   | R936  | QRZ9005-100X | 10 FUSIBLE           |      |
|   | R937  | QRZ9005-100X | 10 FUSIBLE           |      |
|   | R938  | QRZ9005-100X | 10 FUSIBLE           |      |
|   | R971  | QRJ146J-120X | 12 1/4W R. NETWORK   |      |
|   | R1300 | QRE141J-333Y | 33K 1/4W R. NETWORK  |      |
|   | R1301 | QRE141J-222Y | 2.2K 1/4W R. NETWORK |      |
|   | R1302 | QRE141J-222Y | 2.2K 1/4W R. NETWORK |      |
|   | R1303 | QRE141J-222Y | 2.2K 1/4W R. NETWORK |      |
|   | R1304 | QRE141J-222Y | 2.2K 1/4W R. NETWORK |      |
|   | R1305 | QRE141J-222Y | 2.2K 1/4W R. NETWORK |      |
|   | R1306 | QRE141J-222Y | 2.2K 1/4W R. NETWORK |      |
|   | R1307 | QRE141J-333Y | 33K 1/4W R. NETWORK  |      |
|   | R1308 | QRE141J-333Y | 33K 1/4W R. NETWORK  |      |
|   | R1309 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R1310 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R1311 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R1312 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R1313 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1314 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1321 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R1322 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R1323 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1324 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1331 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R1332 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R1333 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1334 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1361 | QRE141J-682Y | 6.8K 1/4W R. NETWORK |      |
|   | R1362 | QRE141J-682Y | 6.8K 1/4W R. NETWORK |      |
|   | R1363 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1364 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1365 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1366 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1369 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R1370 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R1371 | QRE141J-682Y | 6.8K 1/4W R. NETWORK |      |
|   | R1372 | QRE141J-682Y | 6.8K 1/4W R. NETWORK |      |
|   | R1373 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1374 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1375 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1376 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1379 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R1380 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R1381 | QRE141J-682Y | 6.8K 1/4W R. NETWORK |      |
|   | R1382 | QRE141J-682Y | 6.8K 1/4W R. NETWORK |      |
|   | R1383 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1384 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1385 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1386 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1389 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R1390 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R1401 | QRE141J-102Y | 1K 1/4W R. NETWORK   |      |
|   | R1402 | QRE141J-102Y | 1K 1/4W R. NETWORK   |      |
|   | R1403 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1404 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1405 | QRE141J-102Y | 1K 1/4W R. NETWORK   |      |
|   | R1406 | QRE141J-225Y | 2.2M 1/4W R. NETWORK |      |
|   | R1411 | QRE141J-102Y | 1K 1/4W R. NETWORK   |      |
|   | R1412 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1421 | QRE141J-102Y | 1K 1/4W R. NETWORK   |      |
|   | R1422 | QRE141J-102Y | 1K 1/4W R. NETWORK   |      |
|   | R1423 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1424 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1435 | QRE141J-683Y | 68K 1/4W R. NETWORK  |      |
|   | R1436 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1437 | QRE141J-474Y | 470K 1/4W R. NETWORK |      |
|   | R1441 | QRE141J-102Y | 1K 1/4W R. NETWORK   |      |
|   | R1457 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1458 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1459 | QRE141J-113Y | 11K 1/4W R. NETWORK  |      |
|   | R1460 | QRE141J-113Y | 11K 1/4W R. NETWORK  |      |
|   | R1461 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1462 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1463 | QRE141J-333Y | 33K 1/4W R. NETWORK  |      |
|   | R1464 | QRE141J-333Y | 33K 1/4W R. NETWORK  |      |

| △ | Item  | Parts Number  | Description          | Area |
|---|-------|---------------|----------------------|------|
|   | R1465 | QRE141J-124Y  | 120K 1/4W R. NETWORK |      |
|   | R1466 | QRE141J-124Y  | 120K 1/4W R. NETWORK |      |
|   | R1471 | QRJ146J-561X  | 560 1/4W R. NETWORK  |      |
|   | R1472 | QRJ146J-561X  | 560 1/4W R. NETWORK  |      |
|   | R1473 | QRJ146J-681X  | 680 1/4W R. NETWORK  |      |
|   | R1475 | QRE141J-474Y  | 470K 1/4W R. NETWORK |      |
|   | R1476 | QRE141J-474Y  | 470K 1/4W R. NETWORK |      |
|   | R1477 | QRE141J-474Y  | 470K 1/4W R. NETWORK |      |
|   | R1478 | QRE141J-474Y  | 470K 1/4W R. NETWORK |      |
|   | R1479 | QRE141J-474Y  | 470K 1/4W R. NETWORK |      |
|   | R1480 | QRE141J-474Y  | 470K 1/4W R. NETWORK |      |
|   | R1741 | QRJ146J-331X  | 330 1/4W R. NETWORK  |      |
|   | R1841 | QRJ146J-331X  | 330 1/4W R. NETWORK  |      |
|   | VR787 | QVP0004-501Z  | 500 VARIABLE         |      |
|   | VR788 | QVP0004-501Z  | 500 VARIABLE         |      |
|   |       | OTHERS        |                      |      |
|   |       | QUB220-09HHP  | CONNECTOR WIRE ASSY  |      |
|   |       | QUB221-13HHP  | CONNECTOR WIRE ASSY  |      |
|   |       | GWE690-26RR   | VINYL WIRE           |      |
|   |       | GWE691-26RR   | VINYL WIRE           |      |
|   |       | GWE692-38RR   | VINYL WIRE           |      |
|   |       | GWE699-38RR   | VINYL WIRE           |      |
|   |       | QYSB63008E    | T. SCREW             |      |
|   | L791  | QQLZ003-1R0   | INDUCTOR             |      |
|   | L792  | QQLZ003-1R0   | INDUCTOR             |      |
|   | CN081 | QGB2510J1-08  | CONNECTOR            |      |
|   | CN082 | QGB2510J1-08  | CONNECTOR            |      |
|   | CN083 | QGB2510J1-05  | CONNECTOR            |      |
|   | CN101 | QGB2510J1-12  | CONNECTOR            |      |
|   | CN201 | QGB2510J1-04  | CONNECTOR            |      |
|   | CN241 | QGB2510J1-04  | CONNECTOR            |      |
|   | CN255 | QGB2510J1-05  | CONNECTOR            |      |
|   | CN301 | QGB2510J1-17  | CONNECTOR            |      |
|   | CN303 | QGB2510J1-14  | CONNECTOR            |      |
|   | CN342 | QGB2510J1-08  | CONNECTOR            |      |
|   | CN400 | GGF1205C1-31  | FFC SOCKET           |      |
|   | CN451 | QGB2510K1-09  | CONNECTOR            |      |
|   | CN452 | QGB2510J1-09  | CONNECTOR            |      |
|   | CN501 | QGB1214J3-18S | CONNECTOR            |      |
|   | CN601 | QGB1214J3-12S | CONNECTOR            |      |
|   | CN702 | GGA2501C1-05  | CONNECTOR            |      |
|   | CN704 | GGA3901C1-08  | CONNECTOR            |      |
|   | CN706 | QGB2510J1-12  | CONNECTOR            |      |
|   | CN801 | EWS283-003    | SOCKET WIRE ASSY     |      |
|   | CN821 | QGD2501C1-05Z | SOCKET I.M           |      |
|   | CN901 | QGD2501C1-03Z | SOCKET I.M           |      |
|   | CN931 | QGD2501C1-04Z | SOCKET I.M           |      |
|   | CN932 | QGD2501C1-03Z | SOCKET I.M           |      |
|   | CN961 | QGD2501C1-03Z | SOCKET I.M           |      |
|   | EP801 | QNZ0136-001Z  | 1M EARTH PLATE       |      |
|   | FW811 | EWR33D-10SS   | CORD                 |      |
|   | FW821 | EWR35D-08LS   | FLAT WIRE            |      |
|   | FW881 | EWR33D-25LS   | FLAT WIRE            |      |
|   | FW931 | EWR37D-16LS   | FLAT WIRE            |      |
|   | HS851 | E70306-001    | HEAT SINK            |      |
|   | HS861 | E70306-001    | HEAT SINK            |      |
|   | HS871 | E70306-001    | HEAT SINK            |      |
|   | RY931 | QSK0042-001   | RELAY                |      |
|   | RY932 | QSK0042-001   | RELAY                |      |
|   | RY971 | QSK0042-001   | RELAY                |      |
|   | ST931 | QNB0024-001   | SPK. TERMINAL        |      |
|   | TH783 | QAD0012-202   | THERMISTOR           |      |
|   | TH784 | QAD0012-202   | THERMISTOR           |      |
|   | TP781 | QMV5005-004K  | PLUG ASSY            |      |



### ■ Electrical Parts List (Front P.C.B)

| △ | Item  | Parts Number    | Description          | Area |
|---|-------|-----------------|----------------------|------|
|   |       | I. C. S         |                      |      |
|   | IC341 | BU4051BG        | I. C (DIGI-MOS)      |      |
|   | IC342 | BA15218N        | I. C (MONO-ANALOG)   |      |
|   | IC400 | MN172412JABZ    | I. C (M)             |      |
|   | IC401 | MN101C15FAF     | I. C (M)             |      |
|   | IC402 | BU2092          | I. C (M)             |      |
|   | IC403 | IC-PST600/E/-T  | I. C.                |      |
|   | IC404 | GP1U271X        | INFRARED DETECT UNIT |      |
|   |       | DIODES          |                      |      |
|   | D400  | 1SR139-200-T4   | SILICON              |      |
|   | D401  | 1SR139-200-T4   | SILICON              |      |
|   | D402  | 1SR139-200-T4   | SILICON              |      |
|   | D404  | 1SS133-T2       | SI. DIODE            |      |
|   | D410  | 1SS133-T2       | SI. DIODE            |      |
|   | D411  | 1SS133-T2       | SI. DIODE            |      |
|   | D412  | 1SS133-T2       | SI. DIODE            |      |
|   | D413  | 1SS133-T2       | SI. DIODE            |      |
|   | D416  | 1SS133-T2       | SI. DIODE            |      |
|   | D417  | 1SS133-T2       | SI. DIODE            |      |
|   | D418  | 1SS133-T2       | SI. DIODE            |      |
|   | D420  | SLR-342VC-T     | L. E. D.             |      |
|   | D421  | SLR-342VC-T     | L. E. D.             |      |
|   | D422  | SLR-342VC-T     | L. E. D.             |      |
|   | D430  | SLR-342VC-T     | L. E. D.             |      |
|   | D431  | SLR-342VC-T     | L. E. D.             |      |
|   | D432  | SLR-342VC-T     | L. E. D.             |      |
|   | D433  | SLR-342VC-T     | L. E. D.             |      |
|   | D434  | SLR-342VC-T     | L. E. D.             |      |
|   | D435  | SLR-342VC-T     | L. E. D.             |      |
|   | D436  | SLR-342VC-T     | L. E. D.             |      |
|   | D437  | SLR-342VC-T     | L. E. D.             |      |
|   | D438  | SLR-342VC-T     | L. E. D.             |      |
|   | D439  | SLR-342VC-T     | L. E. D.             |      |
|   | D440  | SPR-325MVW/L/-T | L. E. D.             |      |
|   | D442  | SLR-342VC-T     | L. E. D.             |      |
|   | D493  | 1SS133-T2       | SI. DIODE            |      |
|   | D1351 | MTZJ5. 1C-T2    | ZENER                |      |
|   | D1352 | MTZJ5. 1C-T2    | ZENER                |      |
|   |       | TRANSISTORS     |                      |      |
|   | Q401  | DTC114YS-T      | SILICON              |      |
|   | Q402  | DTC114TSTP      | DIGITAL TRANSISTOR   |      |
|   | Q403  | DTC144WS-T      | SILICON              |      |
|   | Q407  | DTC114YS-T      | SILICON              |      |
|   | Q408  | DTC114YS-T      | SILICON              |      |
|   | Q409  | DTC144ES-T      | SILICON              |      |
|   | Q410  | DTC144ES-T      | SILICON              |      |
|   | Q411  | DTC144ES-T      | SILICON              |      |
|   | Q412  | DTC144ES-T      | SILICON              |      |
|   | Q413  | DTA114YS-T      | SILICON              |      |
|   | Q414  | DTA114YS-T      | SILICON              |      |
|   | Q415  | DTA114YS-T      | SILICON              |      |
|   | Q416  | DTA114YS-T      | SILICON              |      |
|   | Q442  | DTA114YS-T      | SILICON              |      |
|   | Q456  | DTA114YS-T      | SILICON              |      |
|   | Q457  | DTA114YS-T      | SILICON              |      |
|   |       | CAPACITORS      |                      |      |
|   | C400  | QEKC1HM-475Z    | 4. 7MF 50V ELECTRO   |      |
|   | C401  | QEKCOJM-107Z    | 100MF 6. 3V ELECTRO  |      |
|   | C402  | QCZ0202-155     | 1. 5MF 25V CER. CAP. |      |
|   | C403  | QE20329-10AZ    | ELECTRO              |      |
|   | C404  | QER61HM-225     | 2. 2MF 50V ELECTRO   |      |
|   | C405  | QDVB1EZ-223Y    | 0. 022MF 25V C. CAP. |      |
|   | C406  | QCB1HK-331Y     | 330PF 50V CER. CAP.  |      |
|   | C407  | QCFB1HZ-104Y    | 0. 1MF 50V CER. CAP. |      |
|   | C408  | QEKCOJM-107Z    | 100MF 6. 3V ELECTRO  |      |
|   | C409  | QEKC1HM-475Z    | 4. 7MF 50V ELECTRO   |      |

| △ | Item  | Parts Number  | Description             | Area |
|---|-------|---------------|-------------------------|------|
|   | C410  | QEKC1HM-475Z  | 4. 7MF 50V ELECTRO      |      |
|   | C412  | QEKCOJM-107Z  | 100MF 6. 3V ELECTRO     |      |
|   | C413  | QDYB1CM-103Y  | 0. 01MF 16V C. CAP.     |      |
|   | C414  | QDYB1CM-103Y  | 0. 01MF 16V C. CAP.     |      |
|   | C1341 | QETB1HM-475E  | 4. 7MF 50V E. CAP.      |      |
|   | C1342 | QETB1HM-475E  | 4. 7MF 50V E. CAP.      |      |
|   | C1343 | QCS21HJ-101A  | 100PF 50V CER. CAP.     |      |
|   | C1346 | QFLB1HJ-103   | 0. 01MF 50V MYLAR CAP.  |      |
|   | C1347 | QFLB1HJ-123   | 0. 012MF 50V MYLAR CAP. |      |
|   | C1349 | QETB1EM-476   | 47MF 25V AL. E. CAP.    |      |
|   | C1350 | QETB1EM-476   | 47MF 25V AL. E. CAP.    |      |
|   | C1351 | QETC1AM-476ZM | 47MF 10V E. CAP.        |      |
|   | C1352 | QETC1AM-476ZM | 47MF 10V E. CAP.        |      |
|   | C1581 | QFVJ1HJ-104Z  | 0. 1MF 50V T. FILM      |      |
|   | C1582 | QFVJ1HJ-104Z  | 0. 1MF 50V T. FILM      |      |
|   | C1585 | QCZ0202-155   | 1. 5MF 25V CER. CAP.    |      |
|   | C1591 | QCB1HK-471Y   | 470PF 50V CER. CAP.     |      |
|   | C1592 | QCB1HK-471Y   | 470PF 50V CER. CAP.     |      |
|   | C1593 | QCB1HK-471Y   | 470PF 50V CER. CAP.     |      |
|   | C1594 | QCB1HK-471Y   | 470PF 50V CER. CAP.     |      |
|   | C1599 | QDYB1CM-103Y  | 0. 01MF 16V C. CAP.     |      |
|   |       | RESISTORS     |                         |      |
|   | R401  | QRE141J-103Y  | 10K 1/4W R. NETWORK     |      |
|   | R402  | QRE141J-103Y  | 10K 1/4W R. NETWORK     |      |
|   | R403  | QRE141J-331Y  | 330 1/4W R. NETWORK     |      |
|   | R404  | QRE141J-103Y  | 10K 1/4W R. NETWORK     |      |
|   | R405  | QRE141J-103Y  | 10K 1/4W R. NETWORK     |      |
|   | R406  | QRE141J-103Y  | 10K 1/4W R. NETWORK     |      |
|   | R407  | QRE141J-103Y  | 10K 1/4W R. NETWORK     |      |
|   | R408  | QRE141J-223Y  | 22K 1/4W R. NETWORK     |      |
|   | R410  | QRE141J-223Y  | 22K 1/4W R. NETWORK     |      |
|   | R411  | QRE141J-472Y  | 4. 7K 1/4W R. NETWORK   |      |
|   | R412  | QRE141J-181Y  | 180 1/4W R. NETWORK     |      |
|   | R417  | QRE141J-103Y  | 10K 1/4W R. NETWORK     |      |
|   | R418  | QRE141J-471Y  | 470 1/4W R. NETWORK     |      |
|   | R419  | QRE141J-103Y  | 10K 1/4W R. NETWORK     |      |
|   | R420  | QRE141J-221Y  | 220 1/4W R. NETWORK     |      |
|   | R421  | QRE141J-271Y  | 270 1/4W R. NETWORK     |      |
|   | R422  | QRE141J-271Y  | 270 1/4W R. NETWORK     |      |
|   | R423  | QRE141J-103Y  | 10K 1/4W R. NETWORK     |      |
|   | R424  | QRE141J-103Y  | 10K 1/4W R. NETWORK     |      |
|   | R425  | QRE141J-103Y  | 10K 1/4W R. NETWORK     |      |
|   | R426  | QRE141J-103Y  | 10K 1/4W R. NETWORK     |      |
|   | R427  | QRE141J-103Y  | 10K 1/4W R. NETWORK     |      |
|   | R430  | QRE141J-103Y  | 10K 1/4W R. NETWORK     |      |
|   | R431  | QRE141J-103Y  | 10K 1/4W R. NETWORK     |      |
|   | R433  | QRE141J-221Y  | 220 1/4W R. NETWORK     |      |
|   | R434  | QRE141J-221Y  | 220 1/4W R. NETWORK     |      |
|   | R435  | QRE141J-221Y  | 220 1/4W R. NETWORK     |      |
|   | R436  | QRE141J-102Y  | 1K 1/4W R. NETWORK      |      |
|   | R437  | QRE141J-102Y  | 1K 1/4W R. NETWORK      |      |
|   | R438  | QRE141J-102Y  | 1K 1/4W R. NETWORK      |      |
|   | R439  | QRE141J-102Y  | 1K 1/4W R. NETWORK      |      |
|   | R440  | QRE141J-103Y  | 10K 1/4W R. NETWORK     |      |
|   | R444  | QRE141J-221Y  | 220 1/4W R. NETWORK     |      |
|   | R445  | QRE141J-221Y  | 220 1/4W R. NETWORK     |      |
|   | R446  | QRE141J-221Y  | 220 1/4W R. NETWORK     |      |
|   | R447  | QRE141J-221Y  | 220 1/4W R. NETWORK     |      |
|   | R448  | QRE141J-221Y  | 220 1/4W R. NETWORK     |      |
|   | R449  | QRE141J-221Y  | 220 1/4W R. NETWORK     |      |
|   | R450  | QRE141J-221Y  | 220 1/4W R. NETWORK     |      |
|   | R451  | QRE141J-221Y  | 220 1/4W R. NETWORK     |      |
|   | R452  | QRE141J-221Y  | 220 1/4W R. NETWORK     |      |
|   | R453  | QRE141J-221Y  | 220 1/4W R. NETWORK     |      |
|   | R454  | QRE141J-221Y  | 220 1/4W R. NETWORK     |      |
|   | R455  | QRE141J-221Y  | 220 1/4W R. NETWORK     |      |

## ■ Electrical Parts List (Front P.C.B)

| △ | Item  | Parts Number | Description          | Area |
|---|-------|--------------|----------------------|------|
|   | R456  | QRE141J-221Y | 220 1/4W R. NETWORK  |      |
|   | R457  | QRE141J-221Y | 220 1/4W R. NETWORK  |      |
|   | R458  | QRE141J-102Y | 1K 1/4W R. NETWORK   |      |
|   | R459  | QRE141J-102Y | 1K 1/4W R. NETWORK   |      |
|   | R460  | QRE141J-221Y | 220 1/4W R. NETWORK  |      |
|   | R461  | QRE141J-221Y | 220 1/4W R. NETWORK  |      |
|   | R462  | QRE141J-221Y | 220 1/4W R. NETWORK  |      |
|   | R463  | QRE141J-102Y | 1K 1/4W R. NETWORK   |      |
|   | R464  | QRE141J-221Y | 220 1/4W R. NETWORK  |      |
|   | R465  | QRE141J-102Y | 1K 1/4W R. NETWORK   |      |
|   | R466  | QRE141J-221Y | 220 1/4W R. NETWORK  |      |
|   | R468  | QRE141J-271Y | 270 1/4W R. NETWORK  |      |
|   | R469  | QRE141J-221Y | 220 1/4W R. NETWORK  |      |
|   | R471  | QRE141J-750Y | 75 1/4W R. NETWORK   |      |
|   | R472  | QRE141J-750Y | 75 1/4W R. NETWORK   |      |
|   | R474  | QRE141J-750Y | 75 1/4W R. NETWORK   |      |
|   | R484  | QRE141J-271Y | 270 1/4W R. NETWORK  |      |
|   | R495  | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R496  | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R497  | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R498  | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R881  | QRZ0209-4R7  | 4.7 2W OXIDE METAL   |      |
|   | R882  | QRZ0209-4R7  | 4.7 2W OXIDE METAL   |      |
|   | R883  | QRZ0209-4R7  | 4.7 2W OXIDE METAL   |      |
|   | R884  | QRZ0209-4R7  | 4.7 2W OXIDE METAL   |      |
|   | R1341 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1342 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1343 | QRE141J-203Y | 20K 1/4W R. NETWORK  |      |
|   | R1344 | QRE141J-203Y | 20K 1/4W R. NETWORK  |      |
|   | R1345 | QRE141J-273Y | 27K 1/4W R. NETWORK  |      |
|   | R1346 | QRE141J-223Y | 22K 1/4W R. NETWORK  |      |
|   | R1347 | QRE141J-132Y | 1.3K 1/4W R. NETWORK |      |
|   | R1348 | QRE141J-182Y | 1.8K 1/4W R. NETWORK |      |
|   | R1349 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R1350 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R1351 | QRE141J-222Y | 2.2K 1/4W R. NETWORK |      |
|   | R1352 | QRE141J-222Y | 2.2K 1/4W R. NETWORK |      |
|   | R1353 | QRE141J-682Y | 6.8K 1/4W R. NETWORK |      |
|   | R1354 | QRE141J-752Y | 7.5K 1/4W R. NETWORK |      |
|   | R1355 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1589 | QRE141J-102Y | 1K 1/4W R. NETWORK   |      |
|   | R1590 | QRE141J-473Y | 47K 1/4W R. NETWORK  |      |
|   | R1591 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1592 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1593 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1594 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R1595 | QRE141J-102Y | 1K 1/4W R. NETWORK   |      |
|   | R1596 | QRE141J-102Y | 1K 1/4W R. NETWORK   |      |
|   |       | OTHERS       |                      |      |
|   | J400  | QND0026-001  | PIN JACK             |      |
|   | S400  | QSW0683-001Z | PUSH SWITCH          |      |
|   | S401  | QSW0683-001Z | PUSH SWITCH          |      |
|   | S402  | QSW0683-001Z | PUSH SWITCH          |      |
|   | S407  | QSW0683-001Z | PUSH SWITCH          |      |
|   | S408  | QSW0683-001Z | PUSH SWITCH          |      |
|   | S409  | QSW0683-001Z | PUSH SWITCH          |      |
|   | S410  | QSW0683-001Z | PUSH SWITCH          |      |
|   | S411  | QSW0683-001Z | PUSH SWITCH          |      |
|   | S412  | QSW0683-001Z | PUSH SWITCH          |      |
|   | S413  | QSW0683-001Z | PUSH SWITCH          |      |
|   | S414  | QSW0683-001Z | PUSH SWITCH          |      |
|   | S415  | QSW0683-001Z | PUSH SWITCH          |      |
|   | S416  | QSW0683-001Z | PUSH SWITCH          |      |
|   | S417  | QSW0683-001Z | PUSH SWITCH          |      |
|   | S418  | QSW0683-001Z | PUSH SWITCH          |      |
|   | S419  | QSW0683-001Z | PUSH SWITCH          |      |

| △ | Item  | Parts Number  | Description              | Area |
|---|-------|---------------|--------------------------|------|
|   | S420  | QSW0683-001Z  | PUSH SWITCH              |      |
|   | X400  | QAX0112-001Z  | RESONATOR I. M           |      |
|   | X401  | QAX0246-001Z  | RESONATOR I. M           |      |
|   | BK400 | E308566-001   | FL HÖLDER                |      |
|   | BK401 | E308566-002   | FL HÖLDER                |      |
|   | BK499 | E70225-002    | EARTH PLATE              |      |
|   | CN061 | QGB2510K1-08  | CONNECTOR                |      |
|   | CN062 | QGB2510K1-08  | CONNECTOR                |      |
|   | CN063 | QGB2510K1-05  | CONNECTOR                |      |
|   | CN071 | QGB2510K1-08  | CONNECTOR                |      |
|   | CN072 | QGB2510K1-08  | CONNECTOR                |      |
|   | CN073 | QGB2510K1-05  | CONNECTOR                |      |
|   | CN341 | QGB2510K1-08  | CONNECTOR                |      |
|   | CN406 | EWS21A-001    | SOCKET WIRE ASSY         |      |
|   | CN410 | QGF1205F1-31  | CONNECTOR                |      |
|   | CN412 | QGF1210G1-21  | CONNECTOR                |      |
|   | CN420 | EWS26A-F908J  | SOCKET WIRE ASSY         |      |
|   | CN422 | QGA2001F1-14  | 14P PLUG ASSY            |      |
|   | CN430 | QGA2001F1-10  | 10P PLUG ASSY            |      |
|   | CN432 | EWS26E-F908J  | SOCKET WIRE ASSY         |      |
|   | CN450 | EWS26A-A940J  | SOCKET WIRE ASSY         |      |
|   | CN881 | QGD2501C1-03Z | SOCKET I. M              |      |
|   | DI400 | QLF0042-001   | FLUORESCENT DISPLAY TUBE |      |
|   | FS400 | E3400-444     | FELT SPACER              |      |
|   | FS401 | E3400-444     | FELT SPACER              |      |
|   | FS489 | E3400-431     | FELT SPACER              |      |
|   | JS400 | QSW0502-001   | SW                       |      |
|   | JS401 | QSW0672-001   | ROTARY SWITCH            |      |
|   | JS402 | QSW0672-001   | ROTARY SWITCH            |      |

## ■ Electrical Parts List (Control P.C.B)

| △ | Item  | Parts Number  | Description            | Area |
|---|-------|---------------|------------------------|------|
|   |       | I. C. S       |                        |      |
|   | IC201 | BA7625        | I. C (MONO-ANALOG)     |      |
|   | IC202 | NJM2285D      | I. C (M)               |      |
|   | IC203 | MB90089PF-206 | I. C (M)               |      |
|   | IC241 | BA7626        | I. C (MONO-ANALOG)     |      |
|   | IC242 | BA7625        | I. C (MONO-ANALOG)     |      |
|   | IC301 | NJM4580D-D    | I. C.                  |      |
|   | IC304 | TC9164AN      | I. C (DIGI-MOS)        |      |
|   | IC305 | NJM4580L      | I. C (MONO-ANALOG)     |      |
|   | IC311 | TC9163AN      | I. C (DIGI-MOS)        |      |
|   | IC391 | BA15218N      | I. C (MONO-ANALOG)     |      |
|   |       | DIODES        |                        |      |
|   | D200  | 1SS133-T2     | SI. DIODE              |      |
|   | D201  | 1SS133-T2     | SI. DIODE              |      |
|   |       | TRANSISTORS   |                        |      |
|   | Q200  | 2SA933S/RS/-T | SILICON                |      |
|   | Q201  | 2SA933S/RS/-T | SILICON                |      |
|   | Q202  | DTG143TS-T    | SILICON                |      |
|   | Q203  | DTG114YS-T    | SILICON                |      |
|   | Q204  | 2SA933S/RS/-T | SILICON                |      |
|   | Q205  | 2SA933S/RS/-T | SILICON                |      |
|   | Q206  | 2SA933S/RS/-T | SILICON                |      |
|   | Q240  | 2SA933S/RS/-T | SILICON                |      |
|   | Q241  | 2SA933S/RS/-T | SILICON                |      |
|   | Q301  | 2SC2878/AB/-T | SILICON                |      |
|   | Q302  | 2SC2878/AB/-T | SILICON                |      |
|   |       | CAPACITORS    |                        |      |
|   | C201  | QETB1HM-475E  | 4.7MF 50V E. CAP.      |      |
|   | C202  | QETB1HM-475E  | 4.7MF 50V E. CAP.      |      |
|   | C203  | QETB0JM-477   | 470MF 6.3V AL E. CAP.  |      |
|   | C204  | QETB1HM-475E  | 4.7MF 50V E. CAP.      |      |
|   | C205  | QETB0JM-477   | 470MF 6.3V AL E. CAP.  |      |
|   | C206  | QETB1HM-475E  | 4.7MF 50V E. CAP.      |      |
|   | C207  | QETB0JM-477   | 470MF 6.3V AL E. CAP.  |      |
|   | C208  | QETC1AM-476ZM | 47MF 10V E. CAP.       |      |
|   | C209  | QCF31HZ-103Z  | 0.01MF 50V CERAMIC     |      |
|   | C210  | QETB1HM-475E  | 4.7MF 50V E. CAP.      |      |
|   | C211  | QETB1HM-107   | 100MF 50V E. CAP.      |      |
|   | C212  | QETC1AM-476ZM | 47MF 10V E. CAP.       |      |
|   | C213  | QCF31HZ-103Z  | 0.01MF 50V CERAMIC     |      |
|   | C214  | QETB1HM-475E  | 4.7MF 50V E. CAP.      |      |
|   | C215  | QETB1HM-475E  | 4.7MF 50V E. CAP.      |      |
|   | C216  | QDX31EM-473Z  | 0.047MF 25V C CAP.     |      |
|   | C217  | QETB1AM-477   | 470MF 10V E. CAP.      |      |
|   | C218  | QCZ0202-155   | 1.5MF 25V CER. CAP.    |      |
|   | C219  | QDC31HJ-150Z  | 15PF 50V C CAP.        |      |
|   | C220  | QDC31HJ-100Z  | 10PF 50V C. CAPA. I. M |      |
|   | C221  | QDC31HJ-470Z  | 47PF 50V C. CAPA. I. M |      |
|   | C222  | QDC31HJ-270Z  | 27PF 50V ACCAPA. I. M  |      |
|   | C223  | QCB1HK-102    | 1000PF 50V CER. CAP.   |      |
|   | C224  | QCB1HK-271Y   | 270PF 50V CER. CAP.    |      |
|   | C225  | QCB1HK-121Y   | 120PF 50V CER. CAP.    |      |
|   | C241  | QDX31EM-473Z  | 0.047MF 25V C CAP.     |      |
|   | C242  | QETB1HM-475E  | 4.7MF 50V E. CAP.      |      |
|   | C244  | QDX31EM-473Z  | 0.047MF 25V C CAP.     |      |
|   | C245  | QETB1HM-475E  | 4.7MF 50V E. CAP.      |      |
|   | C246  | QDX31EM-473Z  | 0.047MF 25V C CAP.     |      |
|   | C247  | QETB0JM-477   | 470MF 6.3V AL E. CAP.  |      |
|   | C249  | QDX31EM-473Z  | 0.047MF 25V C CAP.     |      |
|   | C250  | QETB1HM-475E  | 4.7MF 50V E. CAP.      |      |
|   | C251  | QDX31EM-473Z  | 0.047MF 25V C CAP.     |      |
|   | C252  | QETB0JM-477   | 470MF 6.3V AL E. CAP.  |      |
|   | C254  | QDX31EM-473Z  | 0.047MF 25V C CAP.     |      |
|   | C255  | QETB1HM-475E  | 4.7MF 50V E. CAP.      |      |
|   | C256  | QCF31HZ-103Z  | 0.01MF 50V CERAMIC     |      |
|   | C257  | QETC1AM-476ZM | 47MF 10V E. CAP.       |      |

| △ | Item  | Parts Number  | Description           | Area |
|---|-------|---------------|-----------------------|------|
|   | C258  | QCF31HZ-103Z  | 0.01MF 50V CERAMIC    |      |
|   | C259  | QETC1AM-476ZM | 47MF 10V E. CAP.      |      |
|   | C260  | QDX31EM-473Z  | 0.047MF 25V C CAP.    |      |
|   | C261  | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C268  | QCS21HJ-470   | 47PF 50V CER. CAP.    |      |
|   | C269  | QCS21HJ-470   | 47PF 50V CER. CAP.    |      |
|   | C270  | QCS21HJ-470   | 47PF 50V CER. CAP.    |      |
|   | C271  | QCS21HJ-470   | 47PF 50V CER. CAP.    |      |
|   | C277  | QCS21HJ-470   | 47PF 50V CER. CAP.    |      |
|   | C301  | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C302  | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C303  | QCS21HJ-101A  | 100PF 50V CER. CAP.   |      |
|   | C304  | QCS21HJ-101A  | 100PF 50V CER. CAP.   |      |
|   | C305  | QFLB1HJ-182   | 1800PF 50V MYLAR CAP. |      |
|   | C306  | QFLB1HJ-182   | 1800PF 50V MYLAR CAP. |      |
|   | C307  | QFLB1HJ-682   | 6800PF 50V MYLAR CAP. |      |
|   | C308  | QFLB1HJ-682   | 6800PF 50V MYLAR CAP. |      |
|   | C309  | QCS21HJ-101A  | 100PF 50V CER. CAP.   |      |
|   | C310  | QCS21HJ-101A  | 100PF 50V CER. CAP.   |      |
|   | C311  | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C312  | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C313  | QETC1AM-107ZN | 100MF 10V E. CAP.     |      |
|   | C314  | QETC1AM-107ZN | 100MF 10V E. CAP.     |      |
|   | C315  | QETB1CM-476   | 47MF 16V AL E. CAP.   |      |
|   | C316  | QETB1CM-476   | 47MF 16V AL E. CAP.   |      |
|   | C317  | QETB1EM-226N  | 22MF 25V E. CAP.      |      |
|   | C318  | QETB1EM-226N  | 22MF 25V E. CAP.      |      |
|   | C319  | QCF31HZ-223Z  | 0.022MF 50V CERAMIC   |      |
|   | C320  | QCF31HZ-223Z  | 0.022MF 50V CERAMIC   |      |
|   | C321  | QETB1EM-226N  | 22MF 25V E. CAP.      |      |
|   | C322  | QETB1EM-226N  | 22MF 25V E. CAP.      |      |
|   | C337  | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C338  | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C339  | QETB1EM-226N  | 22MF 25V E. CAP.      |      |
|   | C340  | QETB1EM-226N  | 22MF 25V E. CAP.      |      |
|   | C351  | QCF31HZ-223Z  | 0.022MF 50V CERAMIC   |      |
|   | C352  | QCF31HZ-223Z  | 0.022MF 50V CERAMIC   |      |
|   | C358  | QCB1HK-561Y   | 560PF 50V CER. CAP.   |      |
|   | C361  | QCF31HZ-223Z  | 0.022MF 50V CERAMIC   |      |
|   | C362  | QCF31HZ-223Z  | 0.022MF 50V CERAMIC   |      |
|   | C363  | QETB1EM-226N  | 22MF 25V E. CAP.      |      |
|   | C364  | QETB1EM-226N  | 22MF 25V E. CAP.      |      |
|   | C368  | QCB1HK-471Y   | 470PF 50V CER. CAP.   |      |
|   | C369  | QCB1HK-331Y   | 330PF 50V CER. CAP.   |      |
|   | C370  | QCB1HK-561Y   | 560PF 50V CER. CAP.   |      |
|   | C371  | QETB1EM-476   | 47MF 25V AL E. CAP.   |      |
|   | C372  | QETB1EM-476   | 47MF 25V AL E. CAP.   |      |
|   | C373  | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C374  | QETB1HM-475E  | 4.7MF 50V E. CAP.     |      |
|   | C1250 | QCB1HK-221Y   | 220PF 50V CER. CAP.   |      |
|   | C1251 | QCB1HK-221Y   | 220PF 50V CER. CAP.   |      |
|   | C1252 | QCB1HK-221Y   | 220PF 50V CER. CAP.   |      |
|   |       | RESISTORS     |                       |      |
|   | R200  | QRE141J-750Y  | 75 1/4W R. NETWORK    |      |
|   | R201  | QRE141J-750Y  | 75 1/4W R. NETWORK    |      |
|   | R202  | QRE141J-750Y  | 75 1/4W R. NETWORK    |      |
|   | R203  | QRE141J-750Y  | 75 1/4W R. NETWORK    |      |
|   | R204  | QRE141J-750Y  | 75 1/4W R. NETWORK    |      |
|   | R205  | QRE141J-750Y  | 75 1/4W R. NETWORK    |      |
|   | R206  | QRE141J-750Y  | 75 1/4W R. NETWORK    |      |
|   | R207  | QRE141J-331Y  | 330 1/4W R. NETWORK   |      |
|   | R208  | QRE141J-331Y  | 330 1/4W R. NETWORK   |      |
|   | R209  | QRE141J-473Y  | 47K 1/4W R. NETWORK   |      |
|   | R210  | QRE141J-331Y  | 330 1/4W R. NETWORK   |      |
|   | R211  | QRE141J-473Y  | 47K 1/4W R. NETWORK   |      |
|   | R212  | QRE141J-331Y  | 330 1/4W R. NETWORK   |      |

■ Electrical Parts List (Control P.C.B)

| △ | Item | Parts Number | Description          | Area |
|---|------|--------------|----------------------|------|
|   | R213 | QRE141J-473Y | 47K 1/4W R. NETWORK  |      |
|   | R214 | QRE141J-151Y | 150 1/4W R. NETWORK  |      |
|   | R215 | QRE141J-151Y | 150 1/4W R. NETWORK  |      |
|   | R216 | QRE141J-301Y | 300 1/4W R. NETWORK  |      |
|   | R217 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R218 | QRE141J-331Y | 330 1/4W R. NETWORK  |      |
|   | R219 | QRE141J-101Y | 100 1/4W R. NETWORK  |      |
|   | R220 | QRE141J-121Y | 120 1/4W R. NETWORK  |      |
|   | R221 | QRE141J-151Y | 150 1/4W R. NETWORK  |      |
|   | R222 | QRE141J-561Y | 560 1/4W R. NETWORK  |      |
|   | R223 | QRE141J-561Y | 560 1/4W R. NETWORK  |      |
|   | R224 | QRE141J-561Y | 560 1/4W R. NETWORK  |      |
|   | R225 | QRJ146J-3R3X | 3.3 1/4W R. NETWORK  |      |
|   | R240 | QRE141J-750Y | 75 1/4W R. NETWORK   |      |
|   | R241 | QRE141J-750Y | 75 1/4W R. NETWORK   |      |
|   | R242 | QRE141J-750Y | 75 1/4W R. NETWORK   |      |
|   | R243 | QRE141J-750Y | 75 1/4W R. NETWORK   |      |
|   | R244 | QRE141J-750Y | 75 1/4W R. NETWORK   |      |
|   | R245 | QRE141J-750Y | 75 1/4W R. NETWORK   |      |
|   | R246 | QRE141J-750Y | 75 1/4W R. NETWORK   |      |
|   | R247 | QRE141J-750Y | 75 1/4W R. NETWORK   |      |
|   | R248 | QRE141J-151Y | 150 1/4W R. NETWORK  |      |
|   | R249 | QRE141J-121Y | 120 1/4W R. NETWORK  |      |
|   | R256 | QRE141J-472Y | 4.7K 1/4W R. NETWORK |      |
|   | R257 | QRE141J-471Y | 470 1/4W R. NETWORK  |      |
|   | R258 | QRE141J-472Y | 4.7K 1/4W R. NETWORK |      |
|   | R259 | QRE141J-471Y | 470 1/4W R. NETWORK  |      |
|   | R264 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R265 | QRE141J-103Y | 10K 1/4W R. NETWORK  |      |
|   | R266 | QRE141J-750Y | 75 1/4W R. NETWORK   |      |
|   | R267 | QRE141J-473Y | 47K 1/4W R. NETWORK  |      |
|   | R268 | QRE141J-750Y | 75 1/4W R. NETWORK   |      |
|   | R269 | QRE141J-473Y | 47K 1/4W R. NETWORK  |      |
|   | R271 | QRJ146J-6R8X | 6.8 1/4W R. NETWORK  |      |
|   | R301 | QRE141J-222Y | 2.2K 1/4W R. NETWORK |      |
|   | R302 | QRE141J-222Y | 2.2K 1/4W R. NETWORK |      |
|   | R303 | QRE141J-473Y | 47K 1/4W R. NETWORK  |      |
|   | R304 | QRE141J-473Y | 47K 1/4W R. NETWORK  |      |
|   | R305 | QRE141J-621Y | 620 1/4W R. NETWORK  |      |
|   | R306 | QRE141J-621Y | 620 1/4W R. NETWORK  |      |
|   | R307 | QRE141J-393Y | 39K 1/4W R. NETWORK  |      |
|   | R308 | QRE141J-393Y | 39K 1/4W R. NETWORK  |      |
|   | R309 | QRE141J-474Y | 470K 1/4W R. NETWORK |      |
|   | R310 | QRE141J-474Y | 470K 1/4W R. NETWORK |      |
|   | R311 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R312 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R313 | QRJ146J-331X | 330 1/4W R. NETWORK  |      |
|   | R314 | QRJ146J-331X | 330 1/4W R. NETWORK  |      |
|   | R315 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R316 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R325 | QRE141J-471Y | 470 1/4W R. NETWORK  |      |
|   | R326 | QRE141J-471Y | 470 1/4W R. NETWORK  |      |
|   | R327 | QRE141J-471Y | 470 1/4W R. NETWORK  |      |
|   | R328 | QRE141J-471Y | 470 1/4W R. NETWORK  |      |
|   | R329 | QRE141J-471Y | 470 1/4W R. NETWORK  |      |
|   | R330 | QRE141J-471Y | 470 1/4W R. NETWORK  |      |
|   | R335 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R336 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R337 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R338 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R339 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R340 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R353 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R354 | QRZ9005-680X | 68 FUSIBLE           |      |
|   | R355 | QRE141J-471Y | 470 1/4W R. NETWORK  |      |
|   | R356 | QRE141J-471Y | 470 1/4W R. NETWORK  |      |

| △ | Item  | Parts Number  | Description          | Area |
|---|-------|---------------|----------------------|------|
|   | R357  | QRE141J-471Y  | 470 1/4W R. NETWORK  |      |
|   | R358  | QRE141J-471Y  | 470 1/4W R. NETWORK  |      |
|   | R359  | QRE141J-471Y  | 470 1/4W R. NETWORK  |      |
|   | R360  | QRE141J-471Y  | 470 1/4W R. NETWORK  |      |
|   | R361  | QRE141J-471Y  | 470 1/4W R. NETWORK  |      |
|   | R362  | QRE141J-471Y  | 470 1/4W R. NETWORK  |      |
|   | R363  | QRE141J-471Y  | 470 1/4W R. NETWORK  |      |
|   | R364  | QRE141J-471Y  | 470 1/4W R. NETWORK  |      |
|   | R365  | QRE141J-471Y  | 470 1/4W R. NETWORK  |      |
|   | R366  | QRE141J-471Y  | 470 1/4W R. NETWORK  |      |
|   | R379  | QRE141J-471Y  | 470 1/4W R. NETWORK  |      |
|   | R380  | QRE141J-471Y  | 470 1/4W R. NETWORK  |      |
|   | R381  | QRE141J-183Y  | 18K 1/4W CARBON RES  |      |
|   | R382  | QRE141J-202Y  | 2K 1/4W R. NETWORK   |      |
|   | R383  | QRE141J-104Y  | 100K 1/4W R. NETWORK |      |
|   | R384  | QRE141J-104Y  | 100K 1/4W R. NETWORK |      |
|   | R385  | QRE141J-471Y  | 470 1/4W R. NETWORK  |      |
|   | R386  | QRE141J-471Y  | 470 1/4W R. NETWORK  |      |
|   | R387  | QRE141J-103Y  | 10K 1/4W R. NETWORK  |      |
|   | R388  | QRE141J-103Y  | 10K 1/4W R. NETWORK  |      |
|   | R1250 | QRE141J-101Y  | 100 1/4W R. NETWORK  |      |
|   | R1251 | QRE141J-221Y  | 220 1/4W R. NETWORK  |      |
|   | R1252 | QRE141J-221Y  | 220 1/4W R. NETWORK  |      |
|   | R1253 | QRE141J-471Y  | 470 1/4W R. NETWORK  |      |
|   | R1254 | QRE141J-221Y  | 220 1/4W R. NETWORK  |      |
|   |       | OTHERS        |                      |      |
|   |       | QUB220-10HPPH | WIRE                 |      |
|   | J201  | QNN0078-001   | PIN JACK             |      |
|   | J202  | QNN0067-001   | PIN JACK             |      |
|   | J203  | QNN0078-001   | PIN JACK             |      |
|   | J241  | QND0002-001   | CONNECT TERMINAL     |      |
|   | J242  | QND0028-001   | PIN JACK             |      |
|   | J243  | QND0024-001   | PIN JACK             |      |
|   | J301  | QNN0056-001   | PIN JACK             |      |
|   | J302  | QNN0056-001   | PIN JACK             |      |
|   | J311  | QNN0056-001   | PIN JACK             |      |
|   | J312  | QNN0056-001   | PIN JACK             |      |
|   | J313  | QNN0056-001   | PIN JACK             |      |
|   | J314  | QNN0107-001   | PIN JACK             |      |
|   | L200  | QGL231K-220Y  | INDUCTOR             |      |
|   | X200  | QAX0261-001Z  | CRYSTAL              |      |
|   | CN200 | QGB2510K1-04  | CONNECTOR            |      |
|   | CN202 | QGA2001F1-10  | 10P PLUG ASSY        |      |
|   | CN204 | QGB1214K1-14S | CONNECT TERMINAL     |      |
|   | CN205 | QGB1214J1-14S | CONNECT TERMINAL     |      |
|   | CN206 | QGA2501F1-02  | CONNECTOR            |      |
|   | CN240 | QGB2510K1-04  | CONNECTOR            |      |
|   | CN242 | QGB1214K1-14S | CONNECT TERMINAL     |      |
|   | CN243 | QGB1214J1-14S | CONNECT TERMINAL     |      |
|   | CN244 | QGA2501F1-04  | CONNECTOR            |      |
|   | CN254 | QGB2510K1-05  | CONNECTOR            |      |
|   | CN311 | QGB2510K1-17  | CONNECTOR            |      |
|   | CN313 | QGB2510K1-14  | CONNECTOR            |      |
|   | CN416 | QGA2501F1-03  | CONNECTOR            |      |
|   | J1250 | QNS0077-001   | PIN JACK             |      |
|   | J1251 | QNS0083-001   | PIN JACK             |      |
|   | SW200 | QSW0673-001   | LEVER SWITCH         |      |

### ■ Electrical Parts List (AC Supply P.C.B)

| △ | Item  | Parts Number   | Description        | Area |
|---|-------|----------------|--------------------|------|
|   |       | DIODES         |                    |      |
|   | D051  | 1SR139-200-T4  | SILICON            |      |
|   | D052  | 1SR139-200-T4  | SILICON            |      |
|   | D053  | 1SR139-200-T4  | SILICON            |      |
|   | D054  | 1SR139-200-T4  | SILICON            |      |
|   | D055  | MTZJ12C-T2     | ZENER              |      |
|   | D056  | MTZJ6. 2A-T2   | ZENER              |      |
|   | D057  | 1SS133-T2      | SI. DIODE          |      |
| △ | D061  | 10E2-FD        | DIODE              |      |
|   | D062  | 1SR139-200-T4  | SILICON            |      |
| △ | D063  | 10E2-FD        | DIODE              |      |
|   | D064  | 1SR139-200-T4  | SILICON            |      |
|   | D065  | 1SS133-T2      | SI. DIODE          |      |
|   | D066  | 1SS133-T2      | SI. DIODE          |      |
|   | D071  | 1SR139-200-T4  | SILICON            |      |
|   | D072  | 1SR139-200-T4  | SILICON            |      |
|   | D073  | 1SR139-200-T4  | SILICON            |      |
|   | D074  | MTZJ33C-T2     | ZENER              |      |
|   | D075  | MTZJ6. 2C-T2   | ZENER              |      |
|   | D701  | 1SS133-T2      | SI. DIODE          |      |
|   | D702  | 1SS133-T2      | SI. DIODE          |      |
|   | D703  | 1SS133-T2      | SI. DIODE          |      |
|   | D704  | 1SS133-T2      | SI. DIODE          |      |
| △ | D801  | 30DF2-FC       | SILICON            |      |
| △ | D802  | 30DF2-FC       | SILICON            |      |
| △ | D803  | 30DF2-FC       | SILICON            |      |
| △ | D804  | 30DF2-FC       | SILICON            |      |
| △ | D805  | 30DF2-FC       | SILICON            |      |
| △ | D806  | 30DF2-FC       | SILICON            |      |
| △ | D807  | 30DF2-FC       | SILICON            |      |
| △ | D808  | 30DF2-FC       | SILICON            |      |
|   | D951  | 1SS133-T2      | SI. DIODE          |      |
|   | D952  | 1SS133-T2      | SI. DIODE          |      |
|   | D1701 | 1SS133-T2      | SI. DIODE          |      |
|   | D1702 | MTZJ18C-T2     | ZENER              |      |
|   | D1771 | 1SS133-T2      | SI. DIODE          |      |
|   | D1772 | 1SS133-T2      | SI. DIODE          |      |
|   | D1791 | 1SS133-T2      | SI. DIODE          |      |
|   | D1801 | 1SS133-T2      | SI. DIODE          |      |
|   | D1802 | 1SS133-T2      | SI. DIODE          |      |
|   | D1805 | MTZJ18C-T2     | ZENER              |      |
|   | D1871 | 1SS133-T2      | SI. DIODE          |      |
|   | D1872 | 1SS133-T2      | SI. DIODE          |      |
|   | D1873 | 1SS133-T2      | SI. DIODE          |      |
|   | D1874 | 1SS133-T2      | SI. DIODE          |      |
|   | D1891 | 1SS133-T2      | SI. DIODE          |      |
|   | D1892 | 1SS133-T2      | SI. DIODE          |      |
|   |       | TRANSISTORS    |                    |      |
|   | Q051  | 2SD1266/QP/    | SILICON            |      |
|   | Q052  | 2SC2235/OY/-T  | SILICON            |      |
|   | Q053  | DTC123YS-T     | SILICON            |      |
|   | Q061  | DTC114YS-T     | SILICON            |      |
|   | Q071  | 2SB1357/EF/-T  | SILICON            |      |
|   | Q072  | DTG114ES       | DIGITAL TRANSISTOR |      |
|   | Q073  | DTA144ES-T     | SILICON            |      |
|   | Q074  | 2SC2240/GL/-T  | SILICON            |      |
|   | Q701  | 2SC2240-BL/AB/ | SI. TRANSISTOR     |      |
|   | Q702  | 2SC2240-BL/AB/ | SI. TRANSISTOR     |      |
|   | Q703  | 2SC2240-BL/AB/ | SI. TRANSISTOR     |      |
|   | Q704  | 2SC2240-BL/AB/ | SI. TRANSISTOR     |      |
|   | Q705  | 2SA1038S/SE/-T | SILICON            |      |
|   | Q706  | 2SA1038S/SE/-T | SILICON            |      |
|   | Q707  | 2SA933LN/RS/-T | SILICON            |      |
|   | Q708  | 2SA933LN/RS/-T | SILICON            |      |
|   | Q709  | 2SA1038S/SE/-T | SILICON            |      |
|   | Q710  | 2SA1038S/SE/-T | SILICON            |      |

| △ | Item  | Parts Number   | Description              | Area |
|---|-------|----------------|--------------------------|------|
|   | Q711  | 2SC2389S/SE/-T | SI. TRANSISTOR           |      |
|   | Q712  | 2SC2389S/SE/-T | SI. TRANSISTOR           |      |
|   | Q1701 | 2SC2240-BL/AB/ | SI. TRANSISTOR           |      |
|   | Q1702 | 2SC2240-BL/AB/ | SI. TRANSISTOR           |      |
|   | Q1703 | 2SA1038S/S/-T  | SILICON                  |      |
|   | Q1731 | 2SD636/QR/     | SILICON                  |      |
|   | Q1771 | 2SC2389S/SE/-T | SI. TRANSISTOR           |      |
|   | Q1772 | 2SA1038S/SE/-T | SILICON                  |      |
|   | Q1791 | 2SC2389S/SE/-T | SI. TRANSISTOR           |      |
|   | Q1801 | 2SC2240-BL/AB/ | SI. TRANSISTOR           |      |
|   | Q1802 | 2SC2240-BL/AB/ | SI. TRANSISTOR           |      |
|   | Q1803 | 2SC2240-BL/AB/ | SI. TRANSISTOR           |      |
|   | Q1804 | 2SC2240-BL/AB/ | SI. TRANSISTOR           |      |
|   | Q1805 | 2SA1038S/S/-T  | SILICON                  |      |
|   | Q1806 | 2SA1038S/S/-T  | SILICON                  |      |
|   | Q1831 | 2SD636/QR/     | SILICON                  |      |
|   | Q1832 | 2SD636/QR/     | SILICON                  |      |
|   | Q1871 | 2SC2389S/SE/-T | SI. TRANSISTOR           |      |
|   | Q1872 | 2SC2389S/SE/-T | SI. TRANSISTOR           |      |
|   | Q1873 | 2SA1038S/SE/-T | SILICON                  |      |
|   | Q1874 | 2SA1038S/SE/-T | SILICON                  |      |
|   | Q1891 | 2SC2389S/SE/-T | SI. TRANSISTOR           |      |
|   | Q1892 | 2SC2389S/SE/-T | SI. TRANSISTOR           |      |
|   |       | CAPACITORS     |                          |      |
| △ | C001  | QCZ9019-472    | 4700PF C. CAP.           |      |
| △ | C002  | QCZ9019-472    | 4700PF C. CAP.           |      |
|   | C003  | QOBB1HK-391Y   | 390PF 50V CER. CAP.      |      |
|   | C051  | QFN82AK-472    | 4700PF 100V METAL. MYLAR |      |
|   | C052  | QETM1JM-477    | 470MF 63V ELECTRO        |      |
|   | C053  | QCF31HZ-472Z   | 4700PF 50V CERAMIC       |      |
|   | C054  | QETN1CM-477Z   | 470MF 16V ELECTRO        |      |
|   | C055  | QCF31HZ-472Z   | 4700PF 50V CERAMIC       |      |
|   | C061  | QFN82AJ-104    | 0.1MF 100V MYLAR CAP.    |      |
|   | C062  | QFN82AJ-104    | 0.1MF 100V MYLAR CAP.    |      |
|   | C063  | QFN82AJ-104    | 0.1MF 100V MYLAR CAP.    |      |
|   | C065  | QETB1VM-338    | 3300MF 35V AL. E. CAP.   |      |
|   | C066  | QETB1VM-228N   | 2200MF 35V E. CAP.       |      |
|   | C067  | QETB1HM-475E   | 4.7MF 50V E. CAP.        |      |
|   | C068  | QFLB1HJ-473    | 0.047MF 50V MYLAR CAP.   |      |
|   | C069  | QFLB1HJ-473    | 0.047MF 50V MYLAR CAP.   |      |
|   | C070  | QETB1HM-227    | 220MF 50V E. CAP.        |      |
|   | C071  | QETM1JM-227Z   | 220MF 63V ELECTRO        |      |
|   | C072  | QETB1HM-228E   | 22MF 50V E. CAP.         |      |
|   | C073  | QETB1HM-228E   | 22MF 50V E. CAP.         |      |
|   | C074  | QETB1HM-105    | 1MF 50V AL. E. CAP.      |      |
|   | C091  | QOBB1HK-331Y   | 330PF 50V CER. CAP.      |      |
|   | C092  | QOBB1HK-331Y   | 330PF 50V CER. CAP.      |      |
|   | C705  | QCS21HJ-101A   | 100PF 50V CER. CAP.      |      |
|   | C706  | QCS21HJ-101A   | 100PF 50V CER. CAP.      |      |
|   | C710  | QCS22HJ-220    | 22PF 500V CER. CAP.      |      |
|   | C711  | QFLB1HJ-152    | 1500PF 50V MYLAR CAP.    |      |
|   | C712  | QFLB1HJ-152    | 1500PF 50V MYLAR CAP.    |      |
|   | C713  | QCS21HJ-680A   | 68PF 50V CER. CAP.       |      |
|   | C714  | QCS21HJ-680A   | 68PF 50V CER. CAP.       |      |
|   | C715  | QCS21HJ-680A   | 68PF 50V CER. CAP.       |      |
|   | C716  | QCS21HJ-680A   | 68PF 50V CER. CAP.       |      |
|   | C717  | QCS22HJ-220    | 22PF 500V CER. CAP.      |      |
|   | C801  | QFN82CK-104    | 0.1MF 160V METAL. MYLAR  |      |
|   | C802  | QFN82CK-104    | 0.1MF 160V METAL. MYLAR  |      |
|   | C803  | QFN82CK-104    | 0.1MF 160V METAL. MYLAR  |      |
|   | C804  | QFN82CK-104    | 0.1MF 160V METAL. MYLAR  |      |
|   | C805  | QFN82CK-104    | 0.1MF 160V METAL. MYLAR  |      |
|   | C1701 | QETB1HM-106    | 10MF 50V E. CAP.         |      |
|   | C1702 | QCS21HJ-101A   | 100PF 50V CER. CAP.      |      |
|   | C1703 | QCS21HJ-101A   | 100PF 50V CER. CAP.      |      |
|   | C1704 | QETB1CM-476    | 47MF 16V AL. E. CAP.     |      |

■ Electrical Parts List (AC Supply P.C.B)

| △ | Item  | Parts Number | Description            | Area |
|---|-------|--------------|------------------------|------|
|   | C1705 | QCS21HJ-5R0  | 5PF 50V CER. CAP.      |      |
|   | C1711 | QCS22HJ-330  | 33PF 500V CER. CAP.    |      |
|   | C1712 | QFLB1HJ-103  | 0.01MF 50V MYLAR CAP.  |      |
|   | C1713 | QETB1HM-225  | 2.2MF 50V AL. E. CAP.  |      |
|   | C1714 | QCF31HZ-223Z | 0.022MF 50V CERAMIC    |      |
|   | C1715 | QETB1HM-476  | 47MF 50V E. CAP.       |      |
|   | C1741 | QETB1JM-476  | 47MF 63V AL. E. CAP.   |      |
|   | C1742 | QETB1JM-476  | 47MF 63V AL. E. CAP.   |      |
|   | C1743 | QETB1EM-476  | 47MF 25V AL. E. CAP.   |      |
|   | C1751 | QCS22HJ-470A | 47PF 500V CER. CAP.    |      |
|   | C1752 | QCS22HJ-470A | 47PF 500V CER. CAP.    |      |
|   | C1761 | QFLB1HJ-473  | 0.047MF 50V MYLAR CAP. |      |
|   | C1762 | QFLB1HJ-473  | 0.047MF 50V MYLAR CAP. |      |
|   | C1791 | QCF31HZ-223Z | 0.022MF 50V CERAMIC    |      |
|   | C1801 | QETB1HM-106  | 10MF 50V E. CAP.       |      |
|   | C1802 | QETB1HM-106  | 10MF 50V E. CAP.       |      |
|   | C1803 | QCS21HJ-101A | 100PF 50V CER. CAP.    |      |
|   | C1804 | QCS21HJ-101A | 100PF 50V CER. CAP.    |      |
|   | C1805 | QCS21HJ-101A | 100PF 50V CER. CAP.    |      |
|   | C1806 | QCS21HJ-101A | 100PF 50V CER. CAP.    |      |
|   | C1807 | QETB1CM-476  | 47MF 16V AL. E. CAP.   |      |
|   | C1808 | QETB1CM-476  | 47MF 16V AL. E. CAP.   |      |
|   | C1809 | QCS21HJ-5R0  | 5PF 50V CER. CAP.      |      |
|   | C1810 | QCS21HJ-5R0  | 5PF 50V CER. CAP.      |      |
|   | C1811 | QCS22HJ-330  | 33PF 500V CER. CAP.    |      |
|   | C1812 | QCS22HJ-330  | 33PF 500V CER. CAP.    |      |
|   | C1813 | QFLB1HJ-103  | 0.01MF 50V MYLAR CAP.  |      |
|   | C1814 | QFLB1HJ-103  | 0.01MF 50V MYLAR CAP.  |      |
|   | C1815 | QEK01HM-225Z | 2.2MF 50V ELECTRO      |      |
|   | C1816 | QEK01HM-225Z | 2.2MF 50V ELECTRO      |      |
|   | C1817 | QETB1HM-476  | 47MF 50V E. CAP.       |      |
|   | C1818 | QETB1HM-476  | 47MF 50V E. CAP.       |      |
|   | C1841 | QETB1JM-476  | 47MF 63V AL. E. CAP.   |      |
|   | C1842 | QETB1JM-476  | 47MF 63V AL. E. CAP.   |      |
|   | C1843 | QETB1EM-106  | 10MF 25V AL. E. CAP.   |      |
|   | C1851 | QCS22HJ-470A | 47PF 500V CER. CAP.    |      |
|   | C1852 | QCS22HJ-470A | 47PF 500V CER. CAP.    |      |
|   | C1853 | QCS22HJ-470A | 47PF 500V CER. CAP.    |      |
|   | C1854 | QCS22HJ-470A | 47PF 500V CER. CAP.    |      |
|   | C1861 | QFLB1HJ-473  | 0.047MF 50V MYLAR CAP. |      |
|   | C1862 | QFLB1HJ-473  | 0.047MF 50V MYLAR CAP. |      |
|   | C1863 | QFLB1HJ-473  | 0.047MF 50V MYLAR CAP. |      |
|   | C1864 | QFLB1HJ-473  | 0.047MF 50V MYLAR CAP. |      |
|   | C1891 | QCF31HZ-223Z | 0.022MF 50V CERAMIC    |      |
|   | C1892 | QCF31HZ-223Z | 0.022MF 50V CERAMIC    |      |
|   |       | RESISTORS    |                        |      |
|   | R051  | QRJ146J-153X | 15K 1/4W R. NETWORK    |      |
|   | R052  | QRL012J-332  | 3.3K 1W R. NETWORK     |      |
|   | R053  | QRZ9015-3R3  | 3.3 COMPOSITION        |      |
|   | R054  | QRE141J-821Y | 820 1/4W R. NETWORK    |      |
|   | R061  | QRT012J-R22  | 0.22 1W R. NETWORK     |      |
|   | R062  | QRT012J-R22  | 0.22 1W R. NETWORK     |      |
|   | R065  | QRT022J-1R0  | 1 2W R. NETWORK        |      |
|   | R066  | QRJ146J-2R2X | 2.2 1/4W R. NETWORK    |      |
|   | R067  | QRJ146J-120X | 12 1/4W R. NETWORK     |      |
|   | R068  | QRE141J-562Y | 5.6K 1/4W R. NETWORK   |      |
|   | R069  | QRE141J-822Y | 8.2K 1/4W R. NETWORK   |      |
|   | R070  | QRE141J-103Y | 10K 1/4W R. NETWORK    |      |
|   | R072  | QRJ146J-332X | 3.3K 1/4W R. NETWORK   |      |
|   | R073  | QRE141J-223Y | 22K 1/4W R. NETWORK    |      |
|   | R074  | QRE141J-104Y | 100K 1/4W R. NETWORK   |      |
|   | R081  | QRE141J-104Y | 100K 1/4W R. NETWORK   |      |
|   | R082  | QRE141J-104Y | 100K 1/4W R. NETWORK   |      |
|   | R083  | QRE141J-104Y | 100K 1/4W R. NETWORK   |      |
|   | R091  | QRL022J-471  | 470 2W OXIDE METAL     |      |
|   | R092  | QRL022J-471  | 470 2W OXIDE METAL     |      |

| △ | Item  | Parts Number | Description          | Area |
|---|-------|--------------|----------------------|------|
|   | R705  | QRE141J-202Y | 2K 1/4W R. NETWORK   |      |
|   | R706  | QRE141J-202Y | 2K 1/4W R. NETWORK   |      |
|   | R707  | QRE141J-202Y | 2K 1/4W R. NETWORK   |      |
|   | R708  | QRE141J-202Y | 2K 1/4W R. NETWORK   |      |
|   | R709  | QRE141J-912Y | 9.1K 1/4W R. NETWORK |      |
|   | R710  | QRE141J-912Y | 9.1K 1/4W R. NETWORK |      |
|   | R717  | QRJ146J-562X | 5.6K 1/4W R. NETWORK |      |
|   | R718  | QRJ146J-562X | 5.6K 1/4W R. NETWORK |      |
|   | R719  | QRK126J-103X | 10K 1/2W R. NETWORK  |      |
|   | R720  | QRK126J-103X | 10K 1/2W R. NETWORK  |      |
|   | R721  | QRJ146J-151X | 150 1/4W CARBON RES. |      |
|   | R722  | QRJ146J-151X | 150 1/4W CARBON RES. |      |
|   | R723  | QRE141J-391Y | 390 1/4W R. NETWORK  |      |
|   | R724  | QRE141J-391Y | 390 1/4W R. NETWORK  |      |
|   | R725  | QRE141J-152Y | 1.5K 1/4W R. NETWORK |      |
|   | R726  | QRE141J-152Y | 1.5K 1/4W R. NETWORK |      |
|   | R727  | QRE141J-333Y | 33K 1/4W R. NETWORK  |      |
|   | R728  | QRE141J-333Y | 33K 1/4W R. NETWORK  |      |
|   | R729  | QRE141J-391Y | 390 1/4W R. NETWORK  |      |
|   | R730  | QRE141J-391Y | 390 1/4W R. NETWORK  |      |
|   | R731  | QRE141J-391Y | 390 1/4W R. NETWORK  |      |
|   | R732  | QRE141J-391Y | 390 1/4W R. NETWORK  |      |
|   | R733  | QRE141J-101Y | 100 1/4W R. NETWORK  |      |
|   | R734  | QRE141J-101Y | 100 1/4W R. NETWORK  |      |
|   | R951  | QRJ146J-120X | 12 1/4W R. NETWORK   |      |
|   | R952  | QRJ146J-120X | 12 1/4W R. NETWORK   |      |
|   | R1701 | QRE141J-222Y | 2.2K 1/4W R. NETWORK |      |
|   | R1702 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1703 | QRE141J-202Y | 2K 1/4W R. NETWORK   |      |
|   | R1705 | QRE141J-123Y | 12K 1/4W R. NETWORK  |      |
|   | R1711 | QRE141J-911Y | 910 1/4W R. NETWORK  |      |
|   | R1712 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1721 | QRJ146J-221X | 220 1/4W R. NETWORK  |      |
|   | R1722 | QRE141J-392Y | 3.9K 1/4W R. NETWORK |      |
|   | R1723 | QRE141J-392Y | 3.9K 1/4W R. NETWORK |      |
|   | R1724 | QRE141J-392Y | 3.9K 1/4W R. NETWORK |      |
|   | R1725 | QRE141J-392Y | 3.9K 1/4W R. NETWORK |      |
|   | R1731 | QRE141J-751Y | 750 1/4W R. NETWORK  |      |
|   | R1732 | QRE141J-391Y | 390 1/4W R. NETWORK  |      |
|   | R1742 | QRJ146J-331X | 330 1/4W R. NETWORK  |      |
|   | R1743 | QRL022J-562  | 5.6K 2W R. NETWORK   |      |
|   | R1751 | QRJ146J-100X | 10 1/4W R. NETWORK   |      |
|   | R1752 | QRJ146J-100X | 10 1/4W R. NETWORK   |      |
|   | R1753 | QRZ0197-R22  | 0.22 1W NETWORK RES. |      |
|   | R1761 | QRJ125J-330  | 33 1/2W R. NETWORK   |      |
|   | R1762 | QRL022J-100  | 10 2W R. NETWORK     |      |
|   | R1771 | QRE141J-391Y | 390 1/4W R. NETWORK  |      |
|   | R1772 | QRE141J-391Y | 390 1/4W R. NETWORK  |      |
|   | R1773 | QRE141J-201Y | 200 1/4W R. NETWORK  |      |
|   | R1774 | QRE141J-201Y | 200 1/4W R. NETWORK  |      |
|   | R1791 | QRE141J-272Y | 2.7K 1/4W R. NETWORK |      |
|   | R1792 | QRE141J-153Y | 15K 1/4W R. NETWORK  |      |
|   | R1793 | QRE141J-123Y | 12K 1/4W R. NETWORK  |      |
|   | R1794 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1801 | QRE141J-222Y | 2.2K 1/4W R. NETWORK |      |
|   | R1802 | QRE141J-222Y | 2.2K 1/4W R. NETWORK |      |
|   | R1803 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1804 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1805 | QRE141J-202Y | 2K 1/4W R. NETWORK   |      |
|   | R1806 | QRE141J-202Y | 2K 1/4W R. NETWORK   |      |
|   | R1809 | QRE141J-123Y | 12K 1/4W R. NETWORK  |      |
|   | R1810 | QRE141J-123Y | 12K 1/4W R. NETWORK  |      |
|   | R1811 | QRE141J-911Y | 910 1/4W R. NETWORK  |      |
|   | R1812 | QRE141J-911Y | 910 1/4W R. NETWORK  |      |
|   | R1813 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |
|   | R1814 | QRE141J-104Y | 100K 1/4W R. NETWORK |      |

■ Electrical Parts List (AC Supply P.C.B)

| △ | Item  | Parts Number  | Description          | Area |
|---|-------|---------------|----------------------|------|
|   | R1821 | QRJ146J-221X  | 220 1/4W R. NETWORK  |      |
|   | R1822 | QRJ146J-221X  | 220 1/4W R. NETWORK  |      |
|   | R1823 | QRE141J-392Y  | 3.9K 1/4W R. NETWORK |      |
|   | R1824 | QRE141J-392Y  | 3.9K 1/4W R. NETWORK |      |
|   | R1825 | QRE141J-392Y  | 3.9K 1/4W R. NETWORK |      |
|   | R1826 | QRE141J-392Y  | 3.9K 1/4W R. NETWORK |      |
|   | R1827 | QRE141J-392Y  | 3.9K 1/4W R. NETWORK |      |
|   | R1828 | QRE141J-392Y  | 3.9K 1/4W R. NETWORK |      |
|   | R1829 | QRE141J-392Y  | 3.9K 1/4W R. NETWORK |      |
|   | R1830 | QRE141J-392Y  | 3.9K 1/4W R. NETWORK |      |
|   | R1831 | QRE141J-751Y  | 750 1/4W R. NETWORK  |      |
|   | R1832 | QRE141J-751Y  | 750 1/4W R. NETWORK  |      |
|   | R1833 | QRE141J-391Y  | 390 1/4W R. NETWORK  |      |
|   | R1834 | QRE141J-391Y  | 390 1/4W R. NETWORK  |      |
|   | R1842 | QRJ146J-331X  | 330 1/4W R. NETWORK  |      |
|   | R1843 | QRL022J-562   | 5.6K 2W R. NETWORK   |      |
|   | R1851 | QRJ146J-100X  | 10 1/4W R. NETWORK   |      |
|   | R1852 | QRJ146J-100X  | 10 1/4W R. NETWORK   |      |
|   | R1853 | QRJ146J-100X  | 10 1/4W R. NETWORK   |      |
|   | R1854 | QRJ146J-100X  | 10 1/4W R. NETWORK   |      |
|   | R1855 | QRZ0197-R22   | 0.22 1W NETWORK RES. |      |
|   | R1856 | QRZ0197-R22   | 0.22 1W NETWORK RES. |      |
|   | R1861 | QRJ125J-330   | 33 1/2W R. NETWORK   |      |
|   | R1862 | QRJ125J-330   | 33 1/2W R. NETWORK   |      |
|   | R1863 | QRL022J-100   | 10 2W R. NETWORK     |      |
|   | R1864 | QRL022J-100   | 10 2W R. NETWORK     |      |
|   | R1871 | QRE141J-391Y  | 390 1/4W R. NETWORK  |      |
|   | R1872 | QRE141J-391Y  | 390 1/4W R. NETWORK  |      |
|   | R1873 | QRE141J-391Y  | 390 1/4W R. NETWORK  |      |
|   | R1874 | QRE141J-391Y  | 390 1/4W R. NETWORK  |      |
|   | R1875 | QRE141J-201Y  | 200 1/4W R. NETWORK  |      |
|   | R1876 | QRE141J-201Y  | 200 1/4W R. NETWORK  |      |
|   | R1877 | QRE141J-201Y  | 200 1/4W R. NETWORK  |      |
|   | R1878 | QRE141J-201Y  | 200 1/4W R. NETWORK  |      |
|   | R1891 | QRE141J-272Y  | 2.7K 1/4W R. NETWORK |      |
|   | R1892 | QRE141J-272Y  | 2.7K 1/4W R. NETWORK |      |
|   | R1893 | QRE141J-153Y  | 15K 1/4W R. NETWORK  |      |
|   | R1894 | QRE141J-153Y  | 15K 1/4W R. NETWORK  |      |
|   | R1895 | QRE141J-123Y  | 12K 1/4W R. NETWORK  |      |
|   | R1896 | QRE141J-123Y  | 12K 1/4W R. NETWORK  |      |
|   | R1897 | QRE141J-104Y  | 100K 1/4W R. NETWORK |      |
|   | R1898 | QRE141J-104Y  | 100K 1/4W R. NETWORK |      |
|   |       | OTHERS        |                      |      |
|   |       | QWE881-18RR   | VINYL WIRE           |      |
|   |       | QWE881-38RR   | VINYL WIRE           |      |
|   |       | QWE882-16RR   | VINYL WIRE           |      |
|   |       | QWE882-36RR   | VINYL WIRE           |      |
|   |       | QWE883-12RR   | VINYL WIRE           |      |
|   |       | QWE884-14RR   | PIN WIRE             |      |
|   |       | QWE884-20RR   | VINYL WIRE           |      |
|   |       | QWE886-12RR   | VINYL WIRE           |      |
|   |       | QWE886-16RR   | PIN WIRE             |      |
|   |       | QWE886-26RR   | VINYL WIRE           |      |
|   |       | QWE888-14RR   | PIN WIRE             |      |
|   |       | QYSBSG3008E   | T. SCREW             |      |
|   | G     | QWE882-14RR   | VINYL WIRE           |      |
|   | H     | QWE880-14RR   | VINYL WIRE           |      |
|   | 10    | QWE881-12RR   | VINYL WIRE           |      |
|   | J091  | QNS0023-001   | JACK                 |      |
| △ | S001  | QSW0650-001   | PUSH SWITCH          |      |
| △ | T002  | ETP1000-412B  | POWER TRANSFORMER    |      |
|   | CN051 | QGB2510J1-08  | CONNECTOR            |      |
|   | CN052 | QGB2510J1-08  | CONNECTOR            |      |
|   | CN053 | QGB2510J1-05  | CONNECTOR            |      |
|   | CN055 | QGD2501C1-03Z | SOCKET I.M           |      |
|   | CN056 | QGD2501C1-04Z | SOCKET I.M           |      |

| △ | Item  | Parts Number  | Description         | Area |
|---|-------|---------------|---------------------|------|
|   | CN402 | QGF1205C1-21  | CONNECTOR           |      |
|   | CN701 | EWS216-007    | SOCKET WIRE ASSY    |      |
|   | CN703 | EWS288-001    | VINYL WIRE          |      |
|   | CN705 | QGB2510K1-12  | CONNECTOR           |      |
|   | CN811 | QGA3901F2-03  | CONNECTOR           |      |
|   | CN951 | EWS356-004    | SOCKET WIRE ASSY    |      |
|   | EP001 | E409182-001SM | EARTH TERMINAL      |      |
|   | EP002 | QNZ0136-001Z  | 1M EARTH PLATE      |      |
|   | EP051 | QNZ0136-001Z  | 1M EARTH PLATE      |      |
|   | FC001 | QNG0020-001Z  | FUSE CLIP           |      |
|   | FC002 | QNG0020-001Z  | FUSE CLIP           |      |
|   | FC003 | QNG0020-001Z  | FUSE CLIP           |      |
|   | FC004 | QNG0020-001Z  | FUSE CLIP           |      |
|   | FC005 | QNG0020-001Z  | FUSE CLIP           |      |
|   | FC006 | QNG0020-001Z  | FUSE CLIP           |      |
|   | FC061 | QNG0020-001Z  | FUSE CLIP           |      |
|   | FC062 | QNG0020-001Z  | FUSE CLIP           |      |
|   | FC063 | QNG0020-001Z  | FUSE CLIP           |      |
|   | FC064 | QNG0020-001Z  | FUSE CLIP           |      |
|   | FW051 | EWR37D-10LS   | FLAT WIRE           |      |
|   | FW901 | EWR33D-08LS   | CORD                |      |
|   | FW961 | EWR33D-15LS   | FLAT WIRE           |      |
|   | HS051 | E70945-H40B   | HEAT SINK           |      |
|   | L1761 | QQLZ005-R45   | INDUCTOR            |      |
|   | L1861 | QQLZ005-R45   | INDUCTOR            |      |
|   | L1862 | QQLZ005-R45   | INDUCTOR            |      |
| △ | RY001 | QSK0039-001   | RELAY               |      |
|   | RY061 | QSK0082-001   | RELAY               |      |
|   | RY951 | QSK0042-001   | RELAY               |      |
|   | RY952 | QSK0042-001   | RELAY               |      |
|   | ST951 | QNB0079-001   | SPEAKER TERMINAL    |      |
|   | TA001 | QNZ0079-001Z  | TAB I.M             |      |
|   | TA002 | QNZ0079-001Z  | TAB I.M             |      |
|   | TH071 | QAD0095-4R7Z  | POSITIVE THERMISTOR |      |
|   | TH731 | QAD0012-202   | THERMISTOR          |      |
|   | TH831 | QAD0012-202   | THERMISTOR          |      |
|   | TH832 | QAD0012-202   | THERMISTOR          |      |
|   | VS001 | QSW0524-001   | LEVER SWITCH        |      |

■ Electrical Parts List (AC-3 P.C.B)

| △ | Item  | Parts Number   | Description               | Area |
|---|-------|----------------|---------------------------|------|
|   |       | I. C. S        |                           |      |
|   | IC501 | NJM4580E-W     | I. C (M)                  |      |
|   | IC511 | NJM4580E-W     | I. C (M)                  |      |
|   | IC521 | NJM4580E-W     | I. C (M)                  |      |
|   | IC551 | NJM4580E-W     | I. C (M)                  |      |
|   | IC561 | NJM4580E-W     | I. C (M)                  |      |
|   | IC571 | NJM4580E-W     | I. C (M)                  |      |
|   | IC581 | NJM4580E-W     | I. C (M)                  |      |
|   | IC591 | NJM4580E-W     | I. C (M)                  |      |
|   | IC601 | CS4226-KQ      | I. C (M)                  |      |
|   | IC631 | XCF56009FJ88   | I. C (M)                  |      |
|   | IC641 | XCB56007FJ88   | I. C (M)                  |      |
|   | IC651 | N341256SJ-15-X | I. C (S-RAM)              |      |
|   | IC661 | TC74HCU04AF-W  | I. C.                     |      |
|   | IC671 | MN173222JABP1  | I. C (M)                  |      |
|   | IC672 | TC7504FU-X     | I. C (M)                  |      |
|   | IC673 | TC7532FU-X     | I. C (M)                  |      |
|   |       | CAPACITORS     |                           |      |
|   | C501  | NCB30JK-474X   | 0.47MF 6.3V CER. CAP.     |      |
|   | C503  | NEA21EM-475NZ  | 4.7MF 25V AL E. CAP.      |      |
|   | C504  | NEA21EM-475NZ  | 4.7MF 25V AL E. CAP.      |      |
|   | C505  | NGS31HJ-560X   | 56PF 50V C CAP.           |      |
|   | C506  | NGS31HJ-560X   | 56PF 50V C CAP.           |      |
|   | C509  | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M    |      |
|   | C510  | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M    |      |
|   | C511  | NCB30JK-474X   | 0.47MF 6.3V CER. CAP.     |      |
|   | C513  | NCB31CK-183X   | 0.018MF 16V C. CAPA. C.M. |      |
|   | C514  | NCB31CK-183X   | 0.018MF 16V C. CAPA. C.M. |      |
|   | C515  | NCB31HK-182X   | 1800PF 50V C. CAP.        |      |
|   | C516  | NCB31HK-182X   | 1800PF 50V C. CAP.        |      |
|   | C517  | NCB31HK-562X   | 5600PF 50V C CAP.         |      |
|   | C518  | NCB31HK-562X   | 5600PF 50V C CAP.         |      |
|   | C519  | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M    |      |
|   | C520  | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M    |      |
|   | C521  | NCB31CK-103X   | 0.01MF 16V C. CAPA. C.M   |      |
|   | C522  | NCB31CK-103X   | 0.01MF 16V C. CAPA. C.M   |      |
|   | C523  | NCB31HK-272X   | 2700PF 50V C CAP.         |      |
|   | C524  | NCB31HK-272X   | 2700PF 50V C CAP.         |      |
|   | C525  | NCB31HK-562X   | 5600PF 50V C CAP.         |      |
|   | C526  | NCB31HK-562X   | 5600PF 50V C CAP.         |      |
|   | C527  | NEA21HM-105NZ  | 1MF 50V AL E. CAP.        |      |
|   | C528  | NEA21HM-105NZ  | 1MF 50V AL E. CAP.        |      |
|   | C529  | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M    |      |
|   | C530  | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M    |      |
|   | C551  | NEA21HM-105NZ  | 1MF 50V AL E. CAP.        |      |
|   | C552  | NEA21HM-105NZ  | 1MF 50V AL E. CAP.        |      |
|   | C553  | NCS31HJ-220X   | 22PF 50V C CAP.           |      |
|   | C554  | NCS31HJ-220X   | 22PF 50V C CAP.           |      |
|   | C559  | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M    |      |
|   | C560  | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M    |      |
|   | C561  | NEA21HM-105NZ  | 1MF 50V AL E. CAP.        |      |
|   | C562  | NEA21HM-105NZ  | 1MF 50V AL E. CAP.        |      |
|   | C563  | NCS31HJ-220X   | 22PF 50V C CAP.           |      |
|   | C564  | NCS31HJ-220X   | 22PF 50V C CAP.           |      |
|   | C569  | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M    |      |
|   | C570  | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M    |      |
|   | C571  | NCB31CK-103X   | 0.01MF 16V C. CAPA. C.M   |      |
|   | C572  | NCB31CK-103X   | 0.01MF 16V C. CAPA. C.M   |      |
|   | C573  | NCB31HK-272X   | 2700PF 50V C CAP.         |      |
|   | C574  | NCB31HK-272X   | 2700PF 50V C CAP.         |      |
|   | C575  | NCB31HK-562X   | 5600PF 50V C CAP.         |      |
|   | C576  | NCB31HK-562X   | 5600PF 50V C CAP.         |      |
|   | C577  | NEA21HM-105NZ  | 1MF 50V AL E. CAP.        |      |
|   | C578  | NEA21HM-105NZ  | 1MF 50V AL E. CAP.        |      |
|   | C579  | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M    |      |
|   | C580  | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M    |      |
|   | C581  | NEA21HM-105NZ  | 1MF 50V AL E. CAP.        |      |
|   | C582  | NEA21HM-105NZ  | 1MF 50V AL E. CAP.        |      |
|   | C583  | NCS31HJ-220X   | 22PF 50V C CAP.           |      |
|   | C584  | NCS31HJ-220X   | 22PF 50V C CAP.           |      |
|   | C589  | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M    |      |
|   | C590  | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M    |      |

| △ | Item | Parts Number   | Description             | Area |
|---|------|----------------|-------------------------|------|
|   | C591 | NCB31CK-103X   | 0.01MF 16V C. CAPA. C.M |      |
|   | C592 | NCB31CK-103X   | 0.01MF 16V C. CAPA. C.M |      |
|   | C593 | NCB31HK-272X   | 2700PF 50V C CAP.       |      |
|   | C594 | NCB31HK-272X   | 2700PF 50V C CAP.       |      |
|   | C595 | NCB31HK-562X   | 5600PF 50V C CAP.       |      |
|   | C596 | NCB31HK-562X   | 5600PF 50V C CAP.       |      |
|   | C597 | NEA21HM-105NZ  | 1MF 50V AL E. CAP.      |      |
|   | C598 | NEA21HM-105NZ  | 1MF 50V AL E. CAP.      |      |
|   | C599 | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M  |      |
|   | C600 | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M  |      |
|   | C601 | NCB31HK-152X   | 1500PF 50V C. CAPA. C.M |      |
|   | C602 | NCB31CK-153X   | 0.015MF 16V C CAP.      |      |
|   | C603 | NCB30JK-474X   | 0.47MF 6.3V CER. CAP.   |      |
|   | C604 | NCS31HJ-270X   | 27PF 50V C CAP.         |      |
|   | C605 | NCS31HJ-270X   | 27PF 50V C CAP.         |      |
|   | C608 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C609 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C610 | NCB30JK-474X   | 0.47MF 6.3V CER. CAP.   |      |
|   | C611 | NCB31HK-221X   | 220PF 50V C CAP.        |      |
|   | C619 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C620 | NCB30JK-474X   | 0.47MF 6.3V CER. CAP.   |      |
|   | C631 | NCB31HK-472X   | 4700PF 50V C. CAPA. C.  |      |
|   | C632 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C633 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C634 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C635 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C637 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C638 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C639 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C640 | NCB30JK-474X   | 0.47MF 6.3V CER. CAP.   |      |
|   | C641 | NCB31HK-472X   | 4700PF 50V C. CAPA. C.  |      |
|   | C642 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C643 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C644 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C645 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C647 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C648 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C649 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C650 | NCB30JK-474X   | 0.47MF 6.3V CER. CAP.   |      |
|   | C651 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C652 | NCB30JK-474X   | 0.47MF 6.3V CER. CAP.   |      |
|   | C661 | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M  |      |
|   | C662 | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M  |      |
|   | C664 | NCS31HJ-101X   | 100PF 50V C. CAPA. C.M  |      |
|   | C666 | NEA21HM-105NZ  | 1MF 50V AL E. CAP.      |      |
|   | C669 | NCB31CK-103X   | 0.01MF 16V C. CAPA. C.M |      |
|   | C670 | NCB30JK-474X   | 0.47MF 6.3V CER. CAP.   |      |
|   | C673 | NCB31CK-103X   | 0.01MF 16V C. CAPA. C.M |      |
|   | C678 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C679 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C680 | NCB30JK-474X   | 0.47MF 6.3V CER. CAP.   |      |
|   | C681 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C682 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C683 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C684 | NEA20JM-107NPM | 100MF 6.3V E. CAP.      |      |
|   | C685 | NEA21CM-476NP  | 47MF 16V AL E. CAP.     |      |
|   | C686 | NEA21CM-476NP  | 47MF 16V AL E. CAP.     |      |
|   | C687 | NCB31HK-103X   | 0.01MF 50V C CAP.       |      |
|   | C688 | NEA20JM-107NPM | 100MF 6.3V E. CAP.      |      |
|   | C689 | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M  |      |
|   | C690 | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M  |      |
|   | C691 | NCS31HJ-101X   | 100PF 50V C. CAPA. C.M  |      |
|   | C692 | NCS31HJ-101X   | 100PF 50V C. CAPA. C.M  |      |
|   | C693 | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M  |      |
|   | C695 | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M  |      |
|   | C696 | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M  |      |
|   | C697 | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M  |      |
|   | C698 | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M  |      |
|   | C699 | NCB31CK-104X   | 0.1MF 16V C. CAPA. C.M  |      |
|   |      | RESISTORS      |                         |      |
|   | R501 | NRSA63J-104X   | RES. C.M                |      |
|   | R502 | NRSA63J-104X   | RES. C.M                |      |



### ■ Electrical Parts List (AC-3 P.C.B)

| △ | Item | Parts Number | Description | Area |
|---|------|--------------|-------------|------|
|   | R503 | NRSA63J-103X | RES. C.M    |      |
|   | R504 | NRSA63J-103X | RES. C.M    |      |
|   | R505 | NRSA63J-103X | RES. C.M    |      |
|   | R506 | NRSA63J-103X | RES. C.M    |      |
|   | R511 | NRSA63J-102X | RES. C.M    |      |
|   | R512 | NRSA63J-102X | RES. C.M    |      |
|   | R513 | NRSA63J-102X | RES. C.M    |      |
|   | R514 | NRSA63J-102X | RES. C.M    |      |
|   | R515 | NRSA63J-102X | RES. C.M    |      |
|   | R516 | NRSA63J-102X | RES. C.M    |      |
|   | R517 | NRSA63J-102X | RES. C.M    |      |
|   | R518 | NRSA63J-102X | RES. C.M    |      |
|   | R519 | NRSA63J-472X | RES. C.M    |      |
|   | R521 | NRSA63J-102X | RES. C.M    |      |
|   | R522 | NRSA63J-102X | RES. C.M    |      |
|   | R523 | NRSA63J-102X | RES. C.M    |      |
|   | R524 | NRSA63J-102X | RES. C.M    |      |
|   | R525 | NRSA63J-102X | RES. C.M    |      |
|   | R526 | NRSA63J-102X | RES. C.M    |      |
|   | R527 | NRSA63J-104X | RES. C.M    |      |
|   | R528 | NRSA63J-104X | RES. C.M    |      |
|   | R529 | NRSA63J-103X | RES. C.M    |      |
|   | R530 | NRSA63J-103X | RES. C.M    |      |
|   | R551 | NRSA63J-104X | RES. C.M    |      |
|   | R552 | NRSA63J-104X | RES. C.M    |      |
|   | R553 | NRSA63J-104X | RES. C.M    |      |
|   | R554 | NRSA63J-104X | RES. C.M    |      |
|   | R555 | NRSA63J-333X | RES. I.M    |      |
|   | R556 | NRSA63J-333X | RES. I.M    |      |
|   | R561 | NRSA63J-104X | RES. C.M    |      |
|   | R562 | NRSA63J-104X | RES. C.M    |      |
|   | R563 | NRSA63J-104X | RES. C.M    |      |
|   | R564 | NRSA63J-104X | RES. C.M    |      |
|   | R565 | NRSA63J-752X | MG RES.     |      |
|   | R566 | NRSA63J-752X | MG RES.     |      |
|   | R571 | NRSA63J-102X | RES. C.M    |      |
|   | R572 | NRSA63J-102X | RES. C.M    |      |
|   | R573 | NRSA63J-102X | RES. C.M    |      |
|   | R574 | NRSA63J-102X | RES. C.M    |      |
|   | R575 | NRSA63J-102X | RES. C.M    |      |
|   | R576 | NRSA63J-102X | RES. C.M    |      |
|   | R577 | NRSA63J-104X | RES. C.M    |      |
|   | R578 | NRSA63J-104X | RES. C.M    |      |
|   | R581 | NRSA63J-104X | RES. C.M    |      |
|   | R582 | NRSA63J-104X | RES. C.M    |      |
|   | R583 | NRSA63J-104X | RES. C.M    |      |
|   | R584 | NRSA63J-104X | RES. C.M    |      |
|   | R585 | NRSA63J-752X | MG RES.     |      |
|   | R586 | NRSA63J-752X | MG RES.     |      |
|   | R591 | NRSA63J-102X | RES. C.M    |      |
|   | R592 | NRSA63J-102X | RES. C.M    |      |
|   | R593 | NRSA63J-102X | RES. C.M    |      |
|   | R594 | NRSA63J-102X | RES. C.M    |      |
|   | R595 | NRSA63J-102X | RES. C.M    |      |
|   | R596 | NRSA63J-102X | RES. C.M    |      |
|   | R597 | NRSA63J-104X | RES. C.M    |      |
|   | R598 | NRSA63J-104X | RES. C.M    |      |
|   | R601 | NRSA63F-433X | METAL GLAZE |      |
|   | R602 | NRSA63J-221X | MG RES.     |      |
|   | R603 | NRSA63J-473X | RES. C.M    |      |
|   | R606 | NRSA63J-221X | MG RES.     |      |
|   | R607 | NRSA63J-221X | MG RES.     |      |
|   | R608 | NRSA63J-221X | MG RES.     |      |
|   | R611 | NRSA63J-105X | MG RES.     |      |
|   | R631 | NRSA63J-473X | RES. C.M    |      |
|   | R632 | NRSA63J-473X | RES. C.M    |      |
|   | R633 | NRSA63J-473X | RES. C.M    |      |
|   | R634 | NRSA63J-473X | RES. C.M    |      |
|   | R635 | NRSA63J-473X | RES. C.M    |      |
|   | R636 | NRSA63J-221X | MG RES.     |      |
|   | R637 | NRSA63J-221X | MG RES.     |      |
|   | R638 | NRSA63J-221X | MG RES.     |      |

| △ | Item  | Parts Number  | Description         | Area |
|---|-------|---------------|---------------------|------|
|   | R639  | NRSA63J-221X  | MG RES.             |      |
|   | R641  | NRSA63J-473X  | RES. C.M            |      |
|   | R642  | NRSA63J-473X  | RES. C.M            |      |
|   | R643  | NRSA63J-473X  | RES. C.M            |      |
|   | R644  | NRSA63J-473X  | RES. C.M            |      |
|   | R645  | NRSA63J-473X  | RES. C.M            |      |
|   | R646  | NRSA63J-221X  | MG RES.             |      |
|   | R647  | NRSA63J-221X  | MG RES.             |      |
|   | R648  | NRSA63J-221X  | MG RES.             |      |
|   | R664  | NRSA63J-750X  | RES. C.M            |      |
|   | R665  | NRSA63J-OROX  | RES. C.M            |      |
|   | R666  | NRSA63J-221X  | MG RES.             |      |
|   | R668  | NRSA63J-472X  | RES. C.M            |      |
|   | R670  | NRSA63J-183X  | MG RES.             |      |
|   | R689  | NRSA63J-OROX  | RES. C.M            |      |
|   | R690  | NRSA63J-OROX  | RES. C.M            |      |
|   | R691  | NRSA63J-474X  | RES. C.M            |      |
|   | R692  | QRE141J-473Y  | 47K 1/4W R. NETWORK |      |
|   |       | OTHERS        |                     |      |
|   |       | EWE390-08BB   | VINYL WIRE          |      |
|   |       | E3400-431     | FELT SPACER         |      |
|   | J664  | EMN00TV-107A  | PIN JACK            |      |
|   | K501  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K502  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K521  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K522  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K561  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K562  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K581  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K582  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K601  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K602  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K631  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K632  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K633  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K634  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K641  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K642  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K643  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K644  | NQR0269-007X  | BANDPASS FILTER     |      |
|   | K687  | NQR0229-001X  | F. BEADS C.M        |      |
|   | L661  | EQL5002-470T  | INDUCTOR            |      |
|   | L662  | EQL5002-470T  | INDUCTOR            |      |
|   | X601  | NAX0213-001X  | CRYSTAL             |      |
|   | X671  | NAX0192-001X  | CRYSTAL             |      |
|   | CN681 | QGB1214K3-18W | CONNECTOR           |      |
|   | CN687 | QGB1214K3-12W | CONNECTOR           |      |
|   | KA601 | NQR0271-004X  | BANDPASS FILTER     |      |
|   | KA602 | NQR0271-004X  | BANDPASS FILTER     |      |
|   | KA631 | NQR0271-004X  | BANDPASS FILTER     |      |
|   | KA641 | NQR0271-004X  | BANDPASS FILTER     |      |
|   | KA671 | NQR0271-004X  | BANDPASS FILTER     |      |
|   | LC601 | NQR0150-001X  | EMI FILTER C.M      |      |
|   | LC611 | NQR0150-001X  | EMI FILTER C.M      |      |
|   | LC631 | NQR0156-017X  | EMI FILTER C.M      |      |
|   | LC641 | NQR0156-017X  | EMI FILTER C.M      |      |
|   | LC651 | NQR0156-017X  | EMI FILTER C.M      |      |
|   | LC661 | NQR0150-001X  | EMI FILTER C.M      |      |
|   | LC671 | NQR0150-001X  | EMI FILTER C.M      |      |
|   | UN661 | GP1F32R       | OPTICAL JACK        |      |
|   | UN662 | GP1F32R       | OPTICAL JACK        |      |

### ■ Electrical Parts List (Resistor P.C.B)

| △ | Item  | Parts Number  | Description        | Area |
|---|-------|---------------|--------------------|------|
|   |       | RESISTORS     |                    |      |
| △ | R881  | QRZ0209-4R7   | 4.7 2W OXIDE METAL |      |
| △ | R882  | QRZ0209-4R7   | 4.7 2W OXIDE METAL |      |
| △ | R883  | QRZ0209-4R7   | 4.7 2W OXIDE METAL |      |
| △ | R884  | QRZ0209-4R7   | 4.7 2W OXIDE METAL |      |
|   |       | OTHERS        |                    |      |
|   | CN881 | QGD2501C1-03Z | SOCKET I.M         |      |

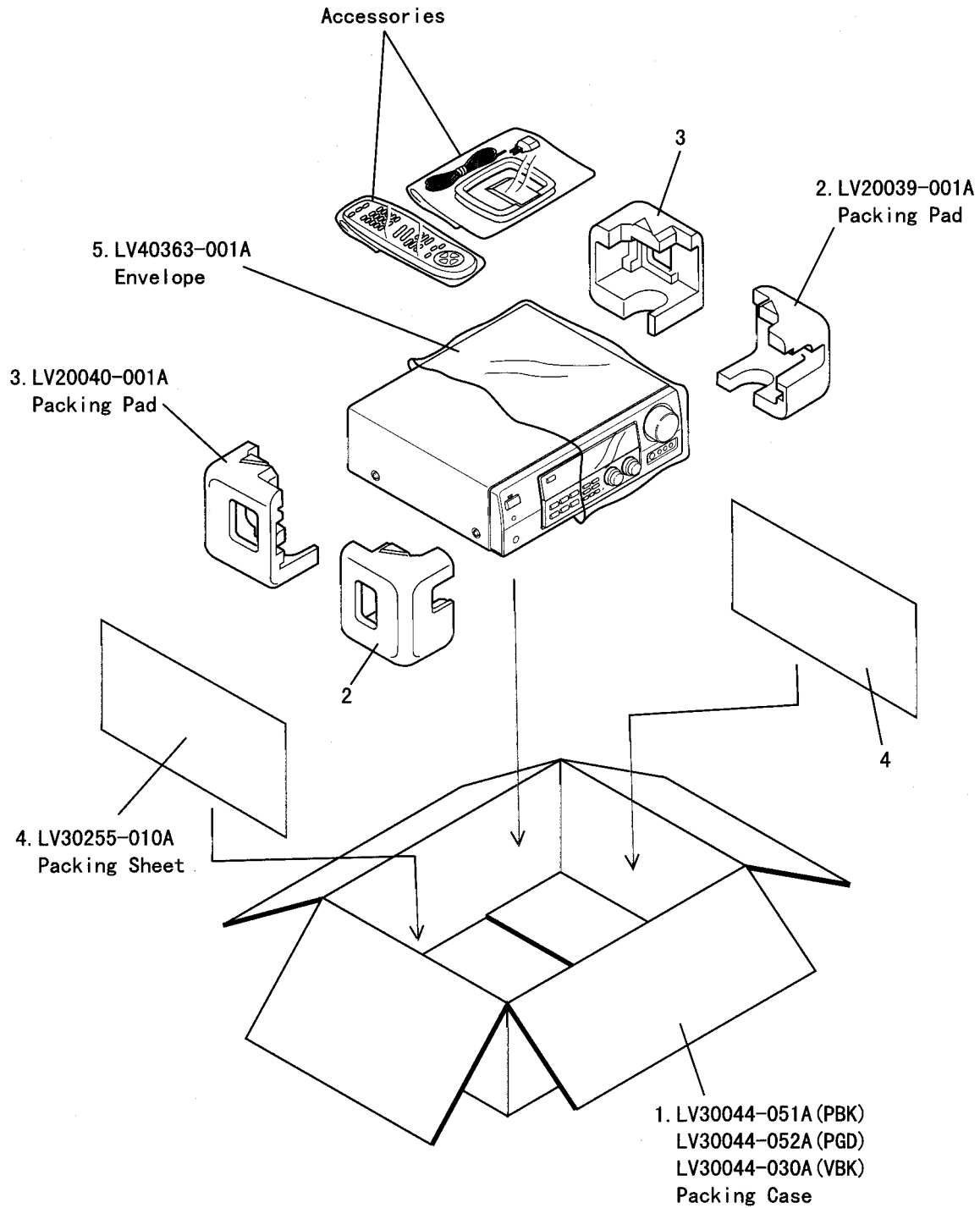
### ■ Accessories List

Block No. M2MM

| △ | Item | Parts Number | Parts Name               | Q'ty | Description | Version & Area |
|---|------|--------------|--------------------------|------|-------------|----------------|
|   | 1    | LVT0017-001A | INSTRUCTION BOOK         | 1    |             | PBK            |
|   |      | LVT0029-001A | INSTRUCTION BOOK         | 1    |             | PGD            |
|   |      | LVT0069-001A | INSTRUCTION BOOK         | 1    |             | VBKU           |
|   |      | LVT0069-002A | INSTRUCTION BOOK         | 1    |             | VBKUT          |
|   | 2    | LV40383-001A | SIGNAL CORD              | 1    |             |                |
|   | 3    | EWP201-011   | ANTENNA WIRE             | 1    |             |                |
|   | 4    | QAL0014-001  | LOOP ANTENNA             | 1    |             |                |
|   | 5    | QAM0112-001  | AC PLUG ADAPTER          | 1    |             | U, US          |
|   |      | QAM0055-001  | CONVERSION PLUG          | 1    |             | UF, UT         |
|   | 6    | RM-SR884XUKP | WIRE-LESS REMOTE CONTROL | 1    |             | PBK, PGD       |
|   |      | RM-SR884NU   | WIRE-LESS REMOTE CONTROL | 1    |             | VBK            |
|   | 7    | R03BPA/2STS  | BATTERY                  | 1    |             |                |
|   | 8    | QPA02503505P | POLY BAG                 | 1    |             |                |
|   | 9    | BT-59009-1   | S. CENTER LIST           | 1    |             | UF             |
|   | 10   | BT-59011-1   | WARANTY CARD             | 1    |             | UF             |

# Packing Materials and Parts Numbers

Block No. **M** **3** **M** **M**



RX-884PBK  
RX-884PGD  
RX-884VBK

**JVC**

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